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FINAL

Treatability Study in Support of Intrinsic Remediation for the Jet Fuel Transfer Line Southwest of Building 412 and the POL Yard Volume 2: Appendices



Wisconsin Air National Guard at Truax Field Madison, Wisconsin

Prepared For

Air Force Center for Environmental Excellence
Technology Transfer Division
Brooks Air Force Base
San Antonio, Texas

and

Wisconsin Air National Guard at Truax Field Madison, Wisconsin

January 1997



APPENDIX A

CONE PENETROMETER LOGS, BOREHOLE LOGS, MONITORING POINT INSTALLATION RECORDS, BOREHOLE ABANDONMENT FORMS, AND SLUG TESTING RESULTS

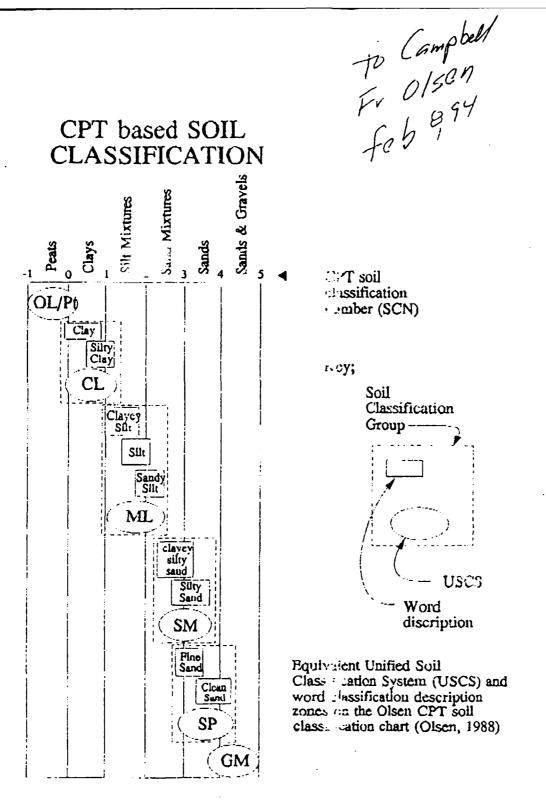
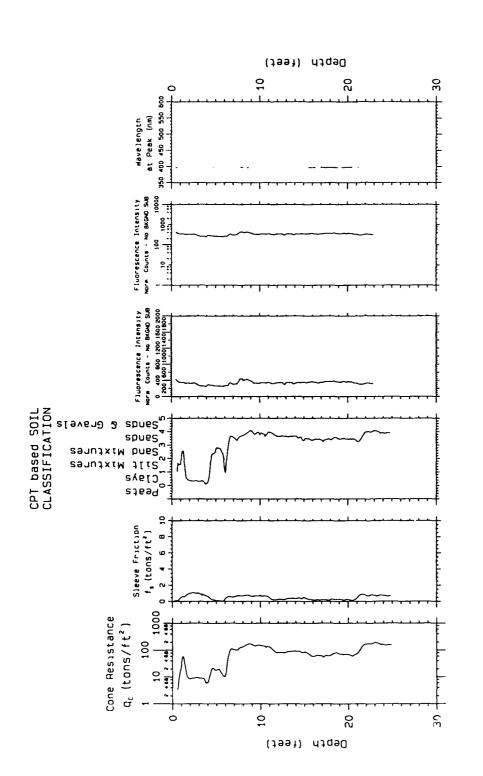


Figure 10 Comparison between the Unified Soil Cla : fication System (USCS) from soil samples and the CPT Soil Characterization Number (SCN) (Olsen, 1988)

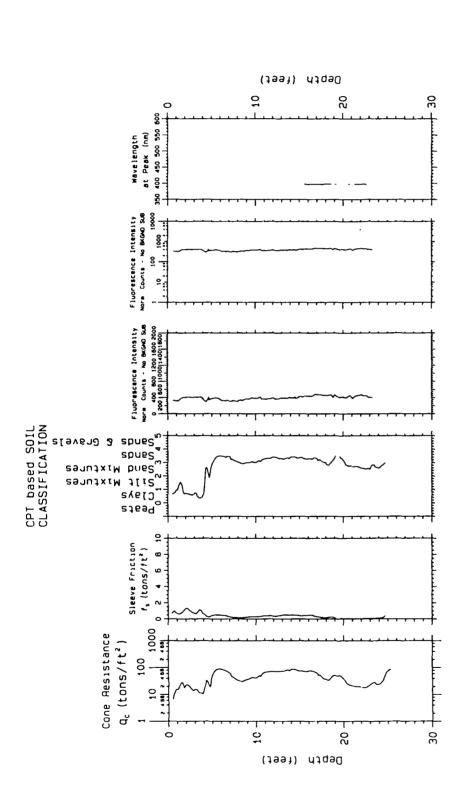


25.05 <NEW> Wisconsin ANG Probe Depth; Project; U.S.Army Engineer District Ransas City Geotechnical Branch

thorescence of POL via

Probling date; 09-12-1994

Site
Characterization
and Analysis
Penetrometer System CPT;

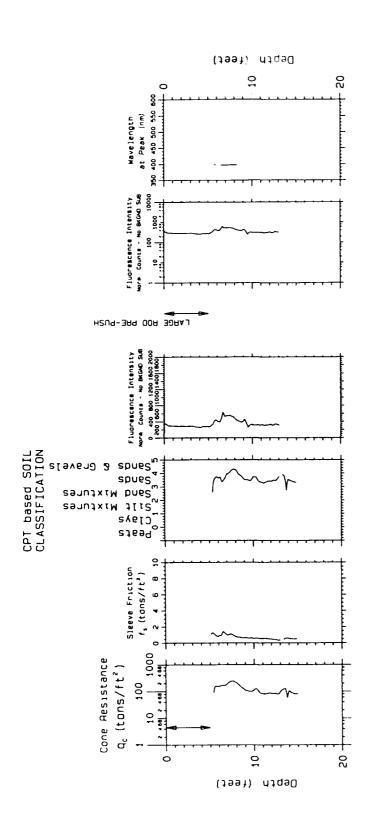


Project; Wisconsin ANG 25.46 Probe Depth;

Site Characterization CPT; 4WIF02

U.S.Army Engineer District Kansas City Geotechnical Branch Laser induced
fluorescence
of POL via Probing date: 09-12-1994

(



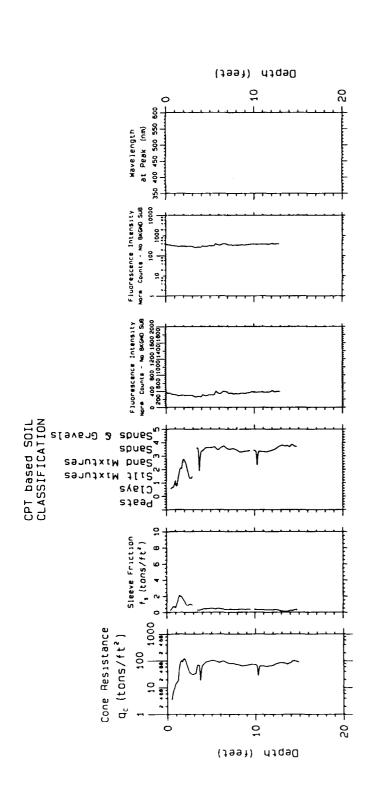
Project; Wisconsin ANG 15.21 Probe Depth;

Characterization CPT; 6WIF03 penetrometer system CPT;

Probling date, 09-13-1994

U.S.Army Engineer District Kansas City Geotechnical Branch

Laser induced
fluorescence
of POL via
floer optics



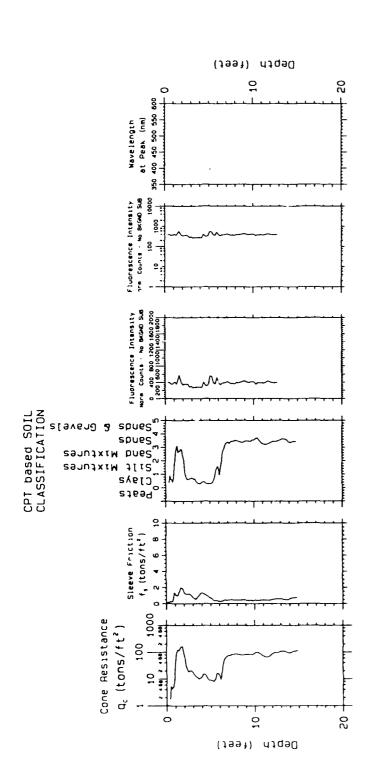
Project; Wisconsin ANG Probe Depth;

Laser induced
fluorescence
of POL via
fluor optics

15.05

Characterization and Analysis Penetrometer System CPT; 7WIF04

U.S.Army Engineer District Ransas City Geotechnical Branch Probling date, 09-13-1994



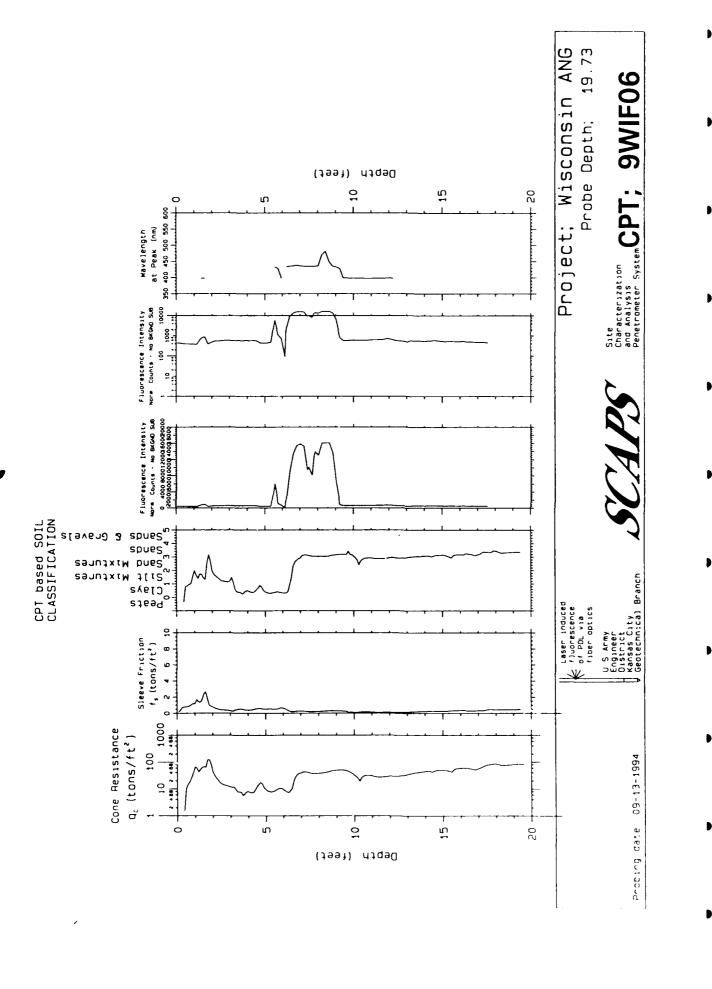
15.03 Project; Wisconsin ANG Probe Depth;

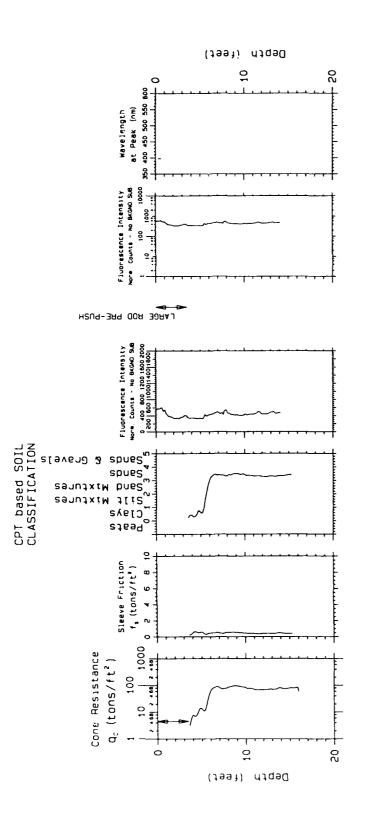
U.S.Army Engineer District Sansas (21ty Geotechnica) Branch

Probling date; 09-13-1994

Laser induced
fluorescence
of POL via
floer optics

Characterization and Analysis Protein CPT; 8WIF05





16.26 Project; Wisconsin ANG

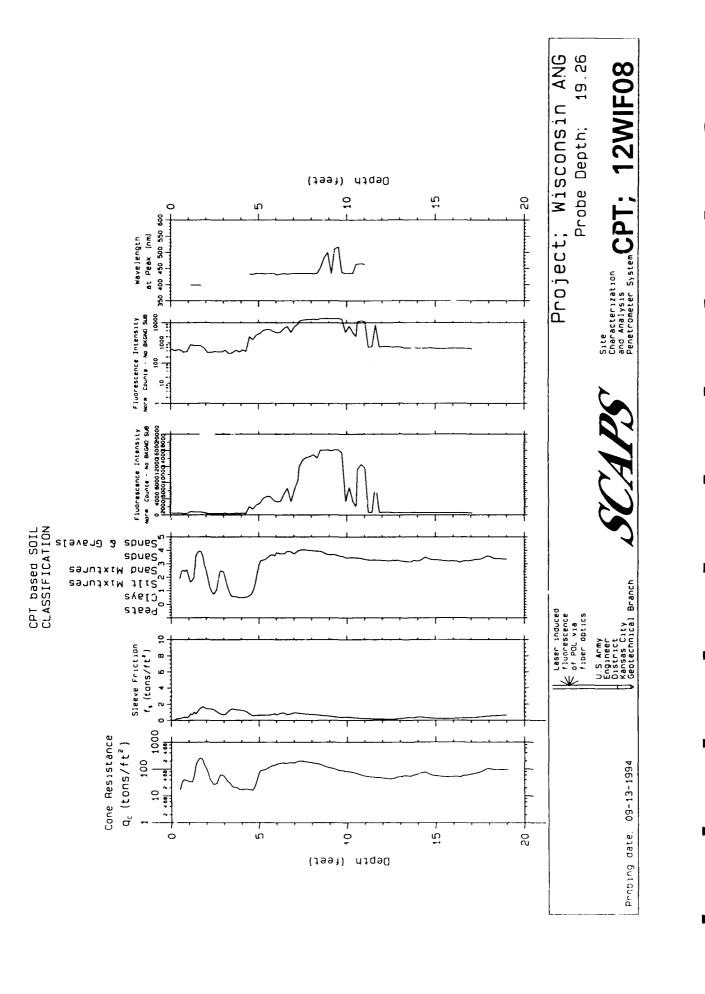
Probe Depth;

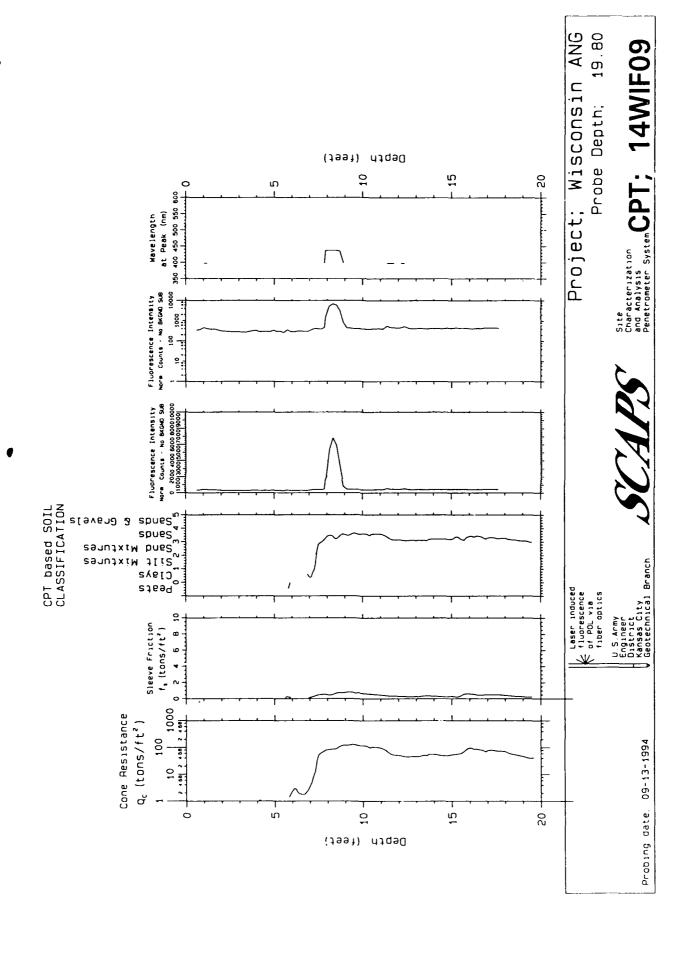
11WIF07 Site Characterization and Analysis Penetrometer System

U S.Army Engineer District Kansas City Geotechnical Branch

Probling date, 09-13-1994

Laser induced
fluorescence
of POL via
fiber optics





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Depth (feet) 20 3 5 wavelength at Peak (nm) 400 450 500 550 600 Fluorescence Intensity Norm Counts - No BKGWD SUB Fluorescence Intensity
Norm Courts - No BKGMO SUB
O 4000 B00012008 B0002000
|Zopojsopojsopq 4009 B009 CPT based SOIL CLASSIFICATION sanutxim bne2 sbne2 sbne2 sbne2 a sbne2 g Cravels Peats Clays Silt Mixtunes Sleeve Friction f, (tons/ft²) 1000 Cone Resistance q_c (tons/ft²) 100 2 4 68 0 0 20 30 Depth (feet)

20.01 Project; Wisconsin ANG 15WIF10 Probe Depth; Site
Characterization
and Analysis
Penetrometer System
CPT. U S Army Engineer District Kansas City Geotechnical Branch Laser induced
fluorescence
of POL via
fiber optics Probling date, 09-13-1994

Sheet 1 of 1

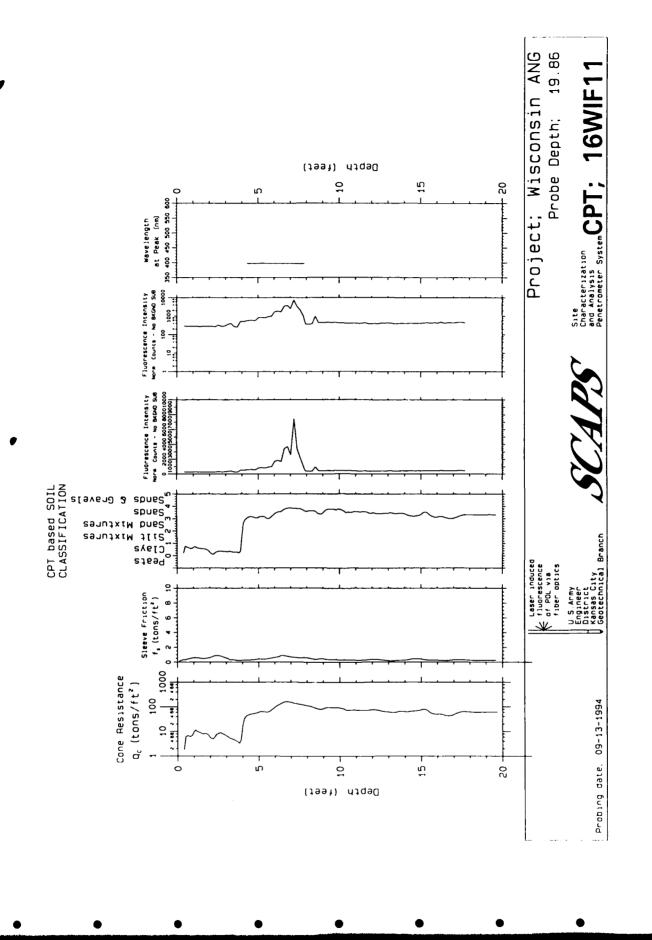
GEOLOGIC BORING LOG
CONTRACTOR: CORP of ENGINEERS DATE SPUD:

BORING NO .: LPTZ AFCEE RIG TYPE:

CLIENT:

Hand Auge-

DATE CMPL.:

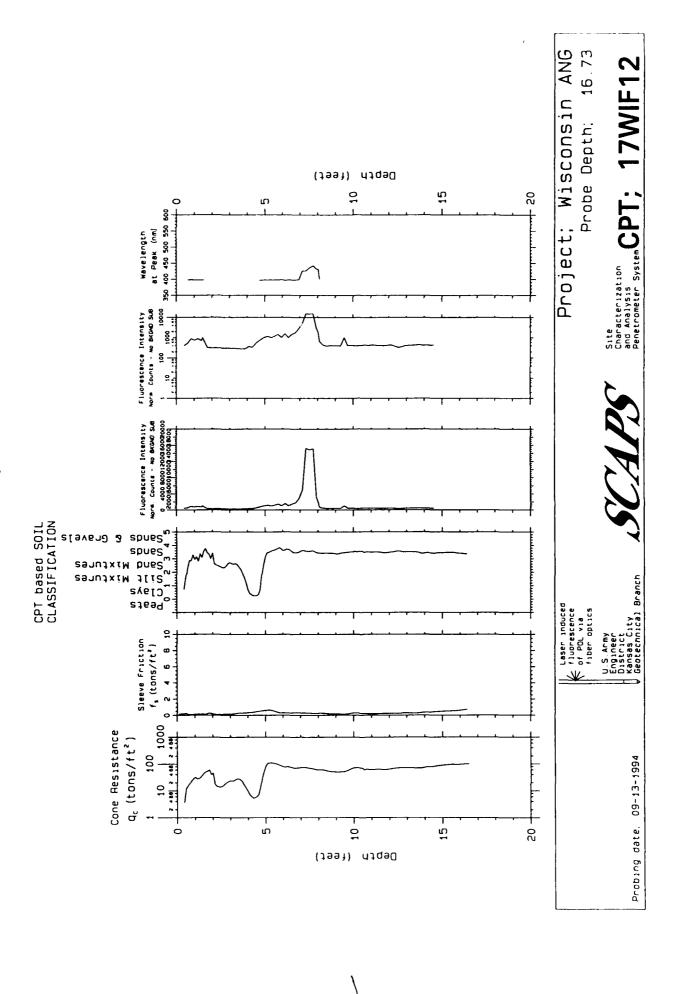


3

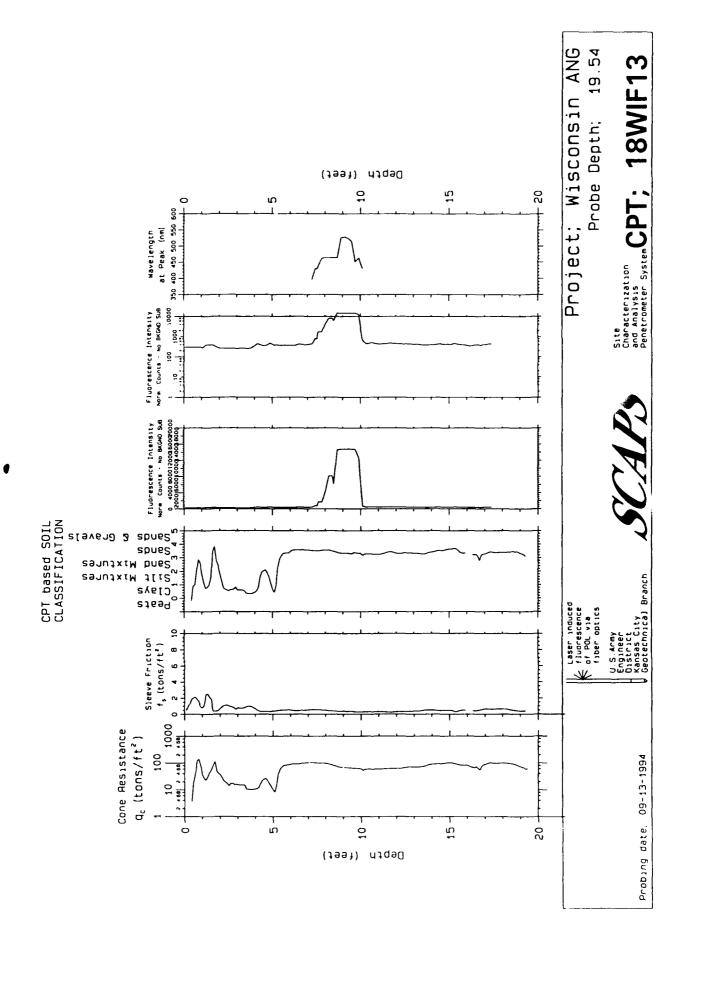
BORING NO.: <u>CP79</u> CONTRACTOR: <u>CORP of ENGINEERS</u> DATE SPUD: <u>9/14/54</u>

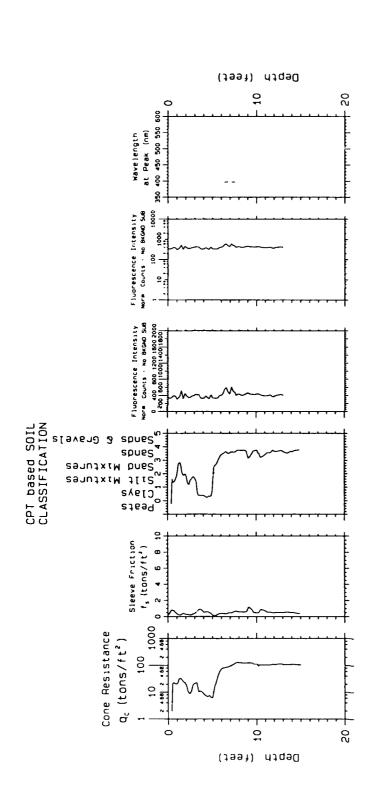
CLIENT: <u>AFCEE</u> RIG TYPE: <u>Hand Ager</u> DATE CMPL.:

JOB NO: 722450.09 DRIG METHOD: ______ ELEVATION:



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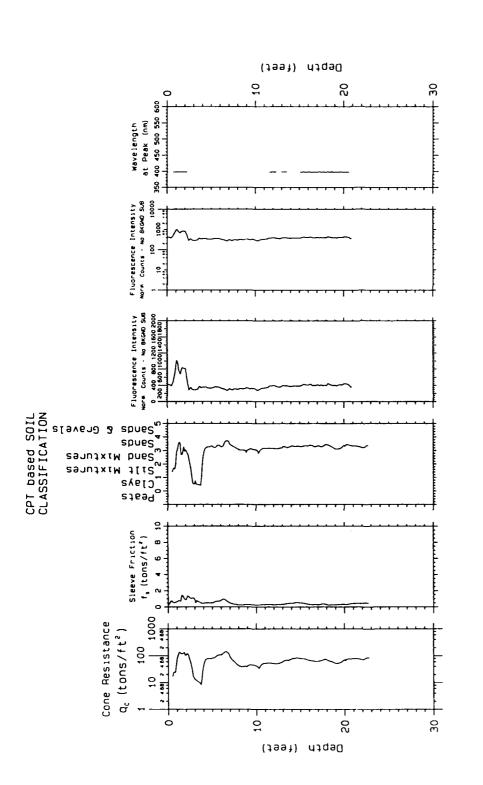
Project; Wisconsin ANG

Probe Depth; 15.17

U.S.Army Engineer District Kansas City Geotechnical Branch thorescence of POL via

19WIF14 Site Characterization and Analysis Penetrometer System CPT;

Probing date: 09-13-1994



23.02 Wisconsin ANG Probe Depth; Project;

U.S.Army Engineer District Kansas City Geotechnical Branch

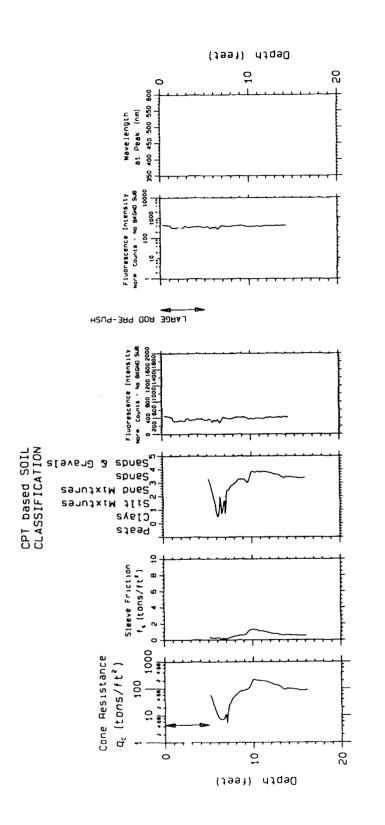
Laser induced
fluorescence
of POL via
fiber optics

20WIF15 Site
Characterization
and Analysis
Penetrometer System CPT;

Probing date: 09-14-1994







Project; Wisconsin ANG

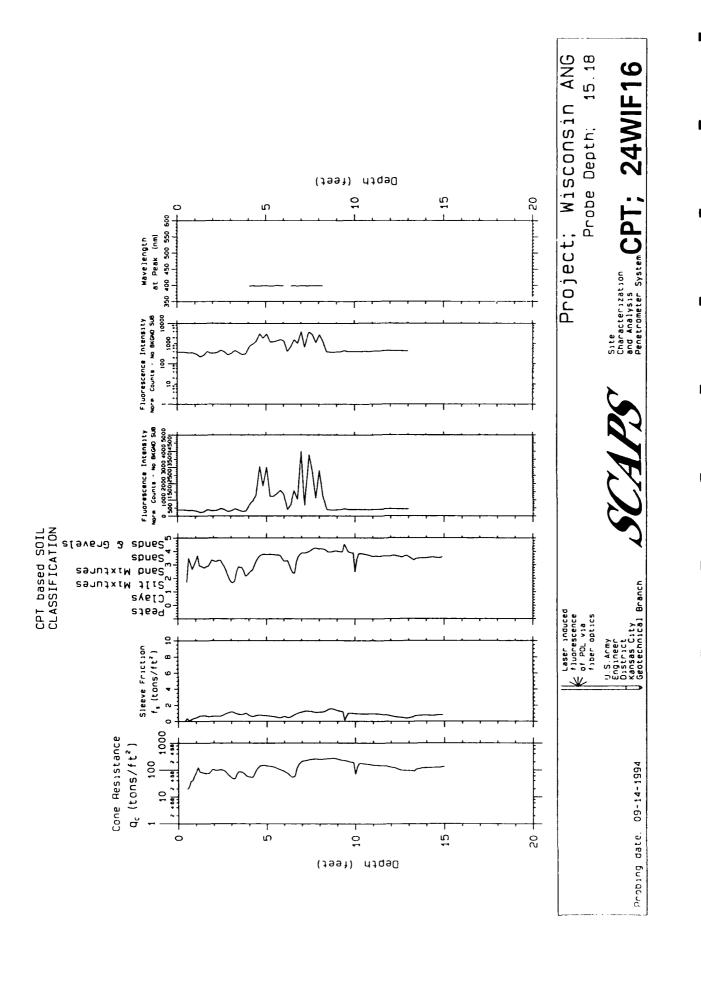
16.40 Probe Depth;

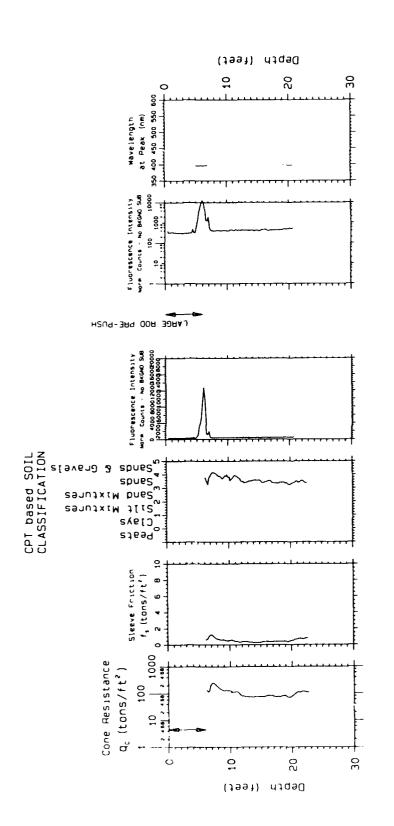
Characterization CPT; 23WIF16

09-14-1994 Probing date.

U.S Army Engineer Oistrict Kansas City Geotechnical Branch

Laser induced
fluorescence
of POL via

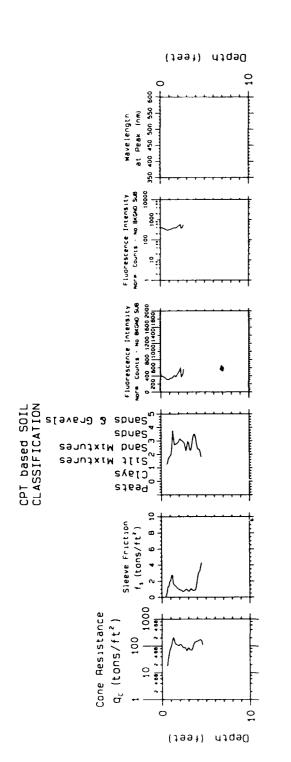




Project; Wisconsin ANG 22.92 Probe Depth;

Characterization CPT; 27WIF17

U.S. Army Engineer District Annsas City Geotechnical Branch Laser induced
fluorescence
of POL via Probling date, 09-14-1994



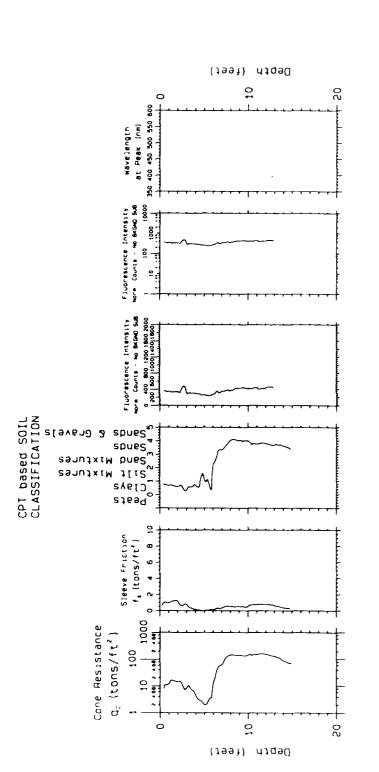
U S Army Engineer District Kansas City Geotechnical Branch

Laser induced
fluorescence
of POL via

Project; Wisconsin ANG Probe Depth; 4.770

Characterization CPT; 25WIF17

Probling date, 09-14-1994



Project; Wisconsin ANG 15.05 Probe Depth;

U S Army
Engineer
Kansas City
Geotechnical Branch

| Probling date, 09-14-1994

Laser induced
fluorescence
of POL via
floer optics

Characterization CPT; 33WIF18 Penetrometer system CPT; 33WIF18

Depth (feet) 10 20 400 450 500 550 600 Wavelength at Peak (nm) Fluorescence Intensity
Norm Counts - No BAGNO SUB
1 100 1000 000 Fluorescence Intensity
Mora Counts - No BKGNO SAB
O 400 800 1200 1500 2000
| 200 | 600 11000|1400|1800| CPT based SOIL CLASSIFICATION eyelg eyelg synuxxm licg shoes sones ebnesgeleyelg S Gravels Sleeve Friction f_s (tons/ft²) 1000 Cone Resistance q_c (tons/ft²) 100 10 Ö 0 20 Depth (feet)

15.04 Project; Wisconsin ANG 47WIF19 Probe Depth; Laser induced
fluorescence
of POL via

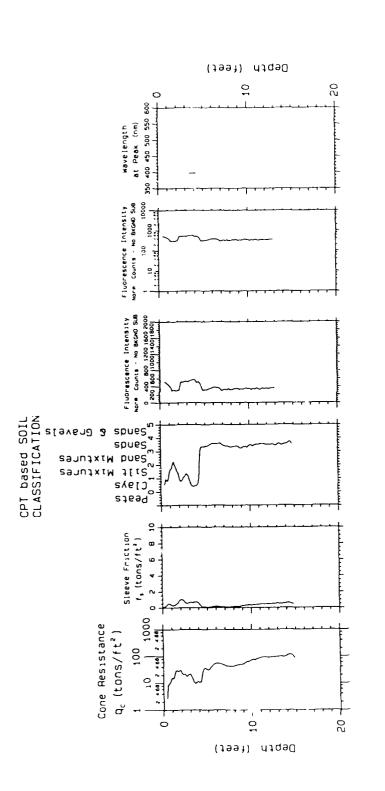
Site Characterization and Analysis Penetrometer System CPT; U.S Army Engineer District Kansas City Geotechnical Branch Probing date, 09-15-1994

4

MONITORING RECORD POINT INSTALLATION MADISON ANGB MONITORING POINT NUMBER PIHD

JOB NAME LOCATION S & POL 9/14/94 722450.09020 JOB NUMBER INSTALLATION DATE DATUM ELEVATION

GROUND SURFACE ELEVATION



Project; Wisconsin ANG Probe Depth, 15.10

Sate Characterization CPT; 53WIF20

Probing date, 09-15-1994

U.S. Army Engineer District Kansas City Gettechnical Branch

Laser induced
fluorescence
of POL via
fiber opiics

ranch CC

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*

		GEOLOGI	C BORING LC)G	Sheet 1 of 1
BORING NO.	CPr3	_CONTRACTOR:	CORP of ENGINEERS	DATE SPUD:	9/16/94
CLIENT:	AFCEE	_RIG_TYPE:	Hund Anger	DATE CMPL.:	
JOB NO.:	722450.09	DRLG METHOD:			
LOCATION:	MADISON	BORING DIA.:		TEMP:	No Musty Sunny Wind 16 mp H SW
GEOLOGIST:	MS	_DRLG_FLUID:		WEATHER:	WIND 10 mp H SW
COMENTS:					

	Depth	Pro-	US		 ample	Sample				TOTAL	ТРH
(ft)	(ft)	file	CS	Geologic Description	Depth (ft)	Туре	Res	PID(ppm)	TLV(ppm)	BTEX(ppm)	(ppm)
	<u> </u>			0-6" Chycy sit - organizmich ter soil dk by				L			
1	 			6" Silvy clay - birum, damp				ļ			
ĺ	 	'		260.61							
1				2.5" - Sand, med, - Clay, well sorted, brown,							
 	- 5 -			, ,							
1				3' - SAA, Alle clay	1						
				3.5'-54A, 7 cky							
				4.5'- SAA, v, moist				ļ			
	-10-			t i		i					
Ì	<u> </u>			5 - Cullect sample For	Ì .			<u> </u>			
	<u> </u>			BTEX, TVH, TEH, TOC				<u> </u>			
	 	:		MS/MSD							
	15-			5'- SAA, little growel							
				,							
	ļ			5.5'- SAA, tan							
	 										
]	-										
<u> </u>	-20-										
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	70										
-	-30-										
	L										
l	35_]									

SAMPLE TYPE

bgs - Below Ground Surface D - DRIVE
GS -- Ground Surface C - CORE

TOC — Top of Casing NS — Not Sampled G - GRAB

SAA – Same As Above

▼ Water level drilled

		<u>GEOLOGI</u>	C BORING L		Sheet 1 of 1
BORING NO.	: LPT7	CONTRACTOR:	CORP of ENGINEERS	DATE SPUD:	9/16/54
CLIENT:	AFCEE	RIG TYPE:	Hand Arge-	_ DATE CMPL.:	
JOB NO.:	722450.09	DRLG METHOD	:	_ ELEVATION:	
LOCATION:	MADISON	BORING DIA.:		_ TEMP:	75 Sinny
GEOLOGIST:	HS DEM	DRLG_FLUID:		_ WEATHER:	15 mpt sucind
COMENTS:			1		

COME	415:											
Elev	Depth	Pro-	US			omple	Sample	Penet			TOTAL	ТРH
(ft)	(ft)	file	cs	Geologic Description	No.	Depth (ft	Туре	Res	PID(ppm)	ILV(ppm)	BTEX(ppm)	(ppm)
1	- 1 -			0-3' Mixed Fill resterats	1							
1				Primarily silt + gravel. some	ŀ					<u> </u>		
1				sand + clay. Dk arganic-rich								
1	5 -			home to de a significant de la								_
				birons to & grayish - bhash grain	l							
ì	<u> </u>			1. 10n Sand & Grove 1]					
j	-		:	3' Clayey silt, slightly grayish brown		i						
İ				Contains blades of old grass, tungs								
 	10-			r, moist		ŀ						•
				-								
1				4' SAA grayish black, IT cobbles,		1						
	<u> </u>			Sl. odor, moist								
-`	-15-					1			<u> </u>			
1				5.5' SAA, some sund								
				's' Soud, little fines, from work arth,								
				grayish brown, v. most								
	20-			7/64								
1				7'Silt, birmish bluck, mursy		ļ						
1	ļ			7'4' Sundy Chy, greenisk- grayish blue								
				1.5 2000								
	-25-			7.8' Saturated								
	23			Sample collicted For BTEX, TVIII		ļ						
				·								
				TEH from Sinds at 7.5-8"								
				Simples were saturated								
	- 30-			,]				- 	
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L	┸╗╗┙						i i				 	

bgs — Below Ground Surface

GS - Ground Surface

TOC - Top of Casing

NS - Not Sampled

SAA - Same As Above

SAMPLE TYPE

D - DRIVE

C - CORE

G - GRAB

▼ Water level drilled

			C BORING LC		Sheet 1 of 1
BORING NO.:	CP79	CONTRACTOR:	CORP of ENGINEERS	DATE SPUD:	9/16/94
CLIENT:			Hand Ager		
JOB NO.:	722450.09	DRLG METHOD:		ELEVATION:	
LOCATION:	MADISON	BORING DIA.:		TEMP.	70 Cloudy
GEOLOGIST:	MS	DRLG FLUID:		WEATHER:	5 mph wind SW
COMENTS:					

	Depth		US			ample	Sample				TOTAL	ГРH
(ft)	(ft)	file	cs	Geologic Description	No.	Depth (ft)	Туре	Res	PID(ppm)	ILV(ppm)	BTEX(ppm)	(ppm)
	1 -			U-1' Gravel + Tysuil	1				 	-		
	<u> </u>			1-35 silty Clay, little send, brewn,					<u> </u>			
				munist								
	5 -											
	-			3.5- \$ Silt, dk grayish black,					ļ	ļ		
				lacustrine(?) grading to clay,					├──	l		
				(o), we stay								
	10-			See 5.2' Siltand vs send ton, si								
				her oder					 -			
				5.2-5.7 Sand, from, grayish tam,	l				 -			
	}			Tuel odor, moist					\vdash			
	15-				l							
				Cullected sample from	ĺ							
	 			5.2·5.7°					-			
		,		NANG- (P79-55					<u> </u>			
	20-			and Dup	ŀ							
	207			WANG- (1772) - 6	l							
	-											
	25								<u> </u>			
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	<u> </u>											
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SAMPLE TYPE

bgs - Below Ground Surface D - DRIVE

GS - Ground Surface

C - CORE

TOC - Top of Casing

NS - Not Sampled

G - GRAB

SAA - Same As Above

▼ Water level drilled

M: \45009\DRAWNGS\940N0982, 09/01/94 at 10:30

MONITORING POINT INSTALLATION RECORD

JOB NAME __MADISON ANGB _ MONITORING POINT NUMBER <u>CPT175</u> JOB NUMBER 722450.09020 INSTALLATION DATE 9/14/94 LOCATION SW of Bidg 4/2

COCHIND SUBEACE ELEVATION

		GEQLOGI	C BORING LO)G	Sheet 1 of 1
BOKING NO .:	CPT18-HA	_CONTRACTOR:	CORP of ENGINEERS	DATE SPUD:	9/15/54
CLIENT:	AFCEE		And Avger		
JOB NO.:	722450.09	_DRLG METHOD	:	ELEVATION:	
LOCATION:	MADISON	_BORING DIA.:	2.5"	TEMP:	المحالف المحال
GEOLOGIST:	MS	_DRLG_FLUID:		WEATHER:	Smay Mantherind For
COMENTS:					South

	Depth		US			ample	Sample		0:0/	2.4	TOTAL	TPH .
(ft)	(ft)	file	cs	Geologic Description	No.	Depth (ft)	Туре	Res	PID(ppm)	(LV(ppm)	BTEX(ppm)	(ppm)
İ	- 1 -			surface clayey Silt, rocks, and k brown,								
				"1" - SAA - except some mittled								
	- 5 -			w/ little clay, It brown, damy)			,					
				3'- Clay, notted brum, it brown +								
				rvst, moist								
	-10 -			4' - Sill , 15 (3")								
				Clay they rust stained,								
, .	-15-			West subject to 5'								
			Í									
	-20-			,								
				3-7) 					
				P. Carrier								
	-25-			/ [*]]						
	70											
	-30-											
	35_											

bgs — Below Ground Surface

GS - Ground Surface

TOC - Top of Casing

NS - Not Sampled

SAA – Same As Above

SAMPLE TYPE

D - DRIVE

C - CORE G - GRAB

▼ Water level drilled

		GEOLOGI	C BORING LO)G	Sheet 1 of 1
BORING NO.	CPTZO	_CONTRACTOR:	CORP of ENGINEERS	DATE SPUD:	9/16/14
CLIENT:	AFCEE	RIG_TYPE:	Hand Ayer	DATE CMPL.:	
JOB NO.:			:	ELEVATION:	
LOCATION:	MADISON	_BORING DIA.:		TEMP:	75° Sunny
GEOLOGIST:	NS DEM	_DRLG FLUID:		WEATHER:	10 mg H word W
COMENTS:					

	Depth		US				Sample				TOTAL	TPH
(ft)	(ft)	file	CS	Geologic Description	No.	Depth (ft)	Туре	Res	PID(ppm)	ĭſ A(bbw)	BTEX(ppm)	(ppm)
(ft)	-10- -15- -20-		CS	Geologic Description 1-1 organic-rich Silt topsort, damp 1' Sand, littlesily, to gravel, well sorted, fined gravines, the oranged the 1.5-4' Mixed layer of med Sand or Silly, organic topsort 4' Silly Clay, slightly gray-brown 4.5' Sand, firm, well stred, tan, It fines, moist 3.5' Sinder sample for TYH, TEH, SAN, Ti-gravel, v. moist					PID(ppm)	T. V(ppm)	BTE X(ppm)	(ppm)

SAMPLE TYPE

D - DRIVE bgs — Below Ground Surface C - CORE GS - Ground Surface G - GRAB TOC - Top of Casing

NS - Not Sampled SAA – Same As Above

▼ Water level drilled

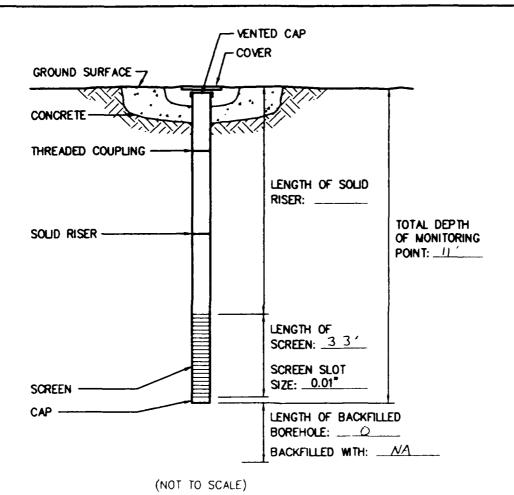
														- ~		
		(Nan	nal Res	Route To: Ources		ız W.s			S	OIL orm 4	BORT 400-12	NG L	OG I	NFOR	MAT	ION 7-91
,			3 14 14 2 14 14 14 14 14 14 14 14 14 14 14 14 14	☐ Emergency ☐ Wasicwater	w	ater Re							, , , , , ,	- ha		. j
	y/Proje				<u> </u>		se/Pern	ut/Mo	กาเอบบโ	Num	er	Boring	Numb	=	_ 01	
Bonni	g Drille	al By (Furng pa	nsin Air Nationa	Guard	Date [Drilling	Starto	 d	Date D	hilling	Comp	P7	- 7 Drilin	в Мец	i hod
	steu BT²,		iatti	·ld		H H	1 <u>4</u>	#1	94 Y Y	M 1	10 1	7/3 5/3	74	Ha	md oer	•
				I Uruque Well No. Comm	non Well Name	Final :		Valer I		Surfac	e Eleva			Boreho)	
Boring State	Local	ion			E S/C/	<u> </u>	. 43	Feel M	71/N	Local (Grid La	Feet N	(II app	licable) "	nches
		r NC	الر	of Section 29. T 8	n, r <u>10 (b</u> n	تما ا بد	18 <u>84°</u>	<u> 20'0</u>	7 <u>8</u> ,M		F	cct 🗆	N - S _			D E
Count	у		ine		DNR	County	Code	Civil	Town/C	ity/ o	r Villa	ge				
Sam		ī.	30t									Soil	Prope	erties		
or	rod (ir	Coun	in Fe	Soil/Rock Des And Geologic C			S	ပ္ည	- E	٥	ard ratio	ure nt		U		sluer
Numbor	Length Recovered (in)	3low Counts	Depth in Feet	Lagged by Stee	17.	2d	nsc	Graphic Log	Well Diagram	PID/FID	Standard Penetration	Moisture Content	Liquid	Plastic Limit	P 200	ROD/ Comments
	1712	"	-	Crass			-		70		ωL	20		7.		-
			E ,	very dark brown trace clay	~ 5, if w/	7	ml					14				
			E 1	/												
		ļ			0			<u> </u>								
			E 3	by m silt with	some =	and	ML					M				
•				12 - 1 - 12 - 12 - 12 - 12 - 12 - 12 -	ray molia	٠,٠						,				
			F 4	gray clay												
		}	<u></u>	by m silt with and of clay, go black clay gray clay silty sand, to	an	•										1
			E													l
	<u> </u> 	ļ 	E 7	sound increases	n silly		5M					M				
			E g	contact 520 7.8	-8.3 fee	#						W				
				Yellowish brown sound, increase contact sampled 7.8	773	$\overline{\Omega L}$										
			E 9	END UT DONLY	J.	Α.							-			
			E_1q				}			į			• •			
			E												İ	
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			<u>E</u> 12													
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than S	10 nor	more	then \$5	Chapters 144.147 and 162, \ ,000 for each violation. Fine	d not less than \$	10 or n	nore th	an \$10	00 or in	1priso	n∞d not	less t	1 2 11 30	t not le days, c	.55 70	
both f	or each	viola	uon. E	ach day of continued violation	is a separate of	fense,	pursuar	nt to ss	144.99	and 1	62.06,	Wis. S	lats.	_	_	

Sute of Wisconsin	Route To:				S	011.	BORE	NG L	og i	NFOR	MAT	105
Department of Natural Res	sources	D Haz. 'ponse D'under		ıks	ř	orm 4	400-12	2	nasá r Torn			7-91
# 782 W/	- 1 1 1 1		cense/Penn	uv/Mor	ນເວເນນ	Num	ber	Boring	Page Numb	<u></u>	_ of	<u></u>
Borng Drilled By (Firm a Steve Garth BT2, Inc.	nsin Air National ame and name of crew chief)	Da	ate Drilling	Suna	94	Date [Orilling	Comp) 844 744 744	_	md ger	lod
DNR Facility Well No. W	I Unique Well No. Common	Well Name Fi	nal Static V	Valer L Feet M	er .	Surfac	e Eleva	Lion	451	Boreho	le Dia	meter iches
Boring Location State Plane	N,	E S/C/N	Lui 43	7/5	4"N	Local)	D E
County Dane	of Section <u>29</u> , T <u>8</u> N,	R 10 (EW)	Long &G	Civil '	Town/	ity/ o	Villag	ge	<u>s</u>		Feet	<u> </u>
Sample -					//	740	Ì		Prope	erties		
Number Length Recovered (in) Blow Counts Depth in Fee	Soil/Rock Descri And Geologic Orig Each Major U Logged by Steve	in For	uscs	Graphic Log	Well Diagram	PID/FID	Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	ROD/ Comments
	brown clavey homogenous ton sithy san Sampled 5.5 End of bor 6.0 feet		ML					MMM				
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I hereby certify that Signature	the information or this for	m is true and	d correct	2	в bes Ind		my kn	owled	lgə.			
than \$10 nor more than \$	y Chapters 144.147 and 162, Wis 5,000 for each violation. Fined neach day of continued violation is	ot less than \$10	tion of this	report	is ma O or in	ndator npriso	ned not	less th	un 30	t not le	2.53	

S	of Wisc															
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Bonng Drilled By (Firm name and name of crew chief) Steve Gatheld BT2, Inc.							Starte T/	पुर्य पुरुष	Date I M N	10		Drilling Method Hand Auger				
DNR Facility Well No. WI Uruque Well No. Common Well Name							E 1	101	i	e Eleva	E)	Borehole Diameter 2 inches				
Borng Location State Plane N, E S/C/N							715	4"N	Local	Gnd L	cation	plicable)				
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County Code Civil Town/City/ or Village Dane Done D																
Sam	Sample										Soil	Prope	erties			
_	Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description				ے		Standard Penetration	6				nts	
Number	gth	ٽ ≩	oth ir	And Geologic Origin For Each Major Unit	• /	SCS	Graphic Log	Well Diagram	PID/FID	nda	Moisture Content	Liquid	Plastic Limit	200	RQD/ Comments	
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i her	eby c	etlife.	<u>—12</u>	the information on this form in the	30d -	1	10.11			my 45	Ovilor	100	<u> </u>		<u> </u>	
Signat	nte	\mathbb{Z}		the information on this form is true	Furn					IIIY KII	OWIEC	<u> </u>				
Lis form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than \$10 nor more than \$5,000 for each violation. Fined not less than \$10 or more than \$100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.																

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State of Depart		(Naru	ral Res	Route To: ources		ız. Wası		nks			BOR I. 400-12:								
	,			Wastewater		ater Re	connect			ى،م بند	ili Vindenia ili	ئے۔	Page	- 1	of				
) . acilic									License/Permit/Monitoring Number Boring Number CPT 20										
	Date D	hilling	Suna		Date Drilling Completed				Drilling Method										
Borng Drilled By (Firm name and name of crew chief) Steve Gettield BT2, Inc.							'유	3	77	MN	/음	D Y	Hand Auger						
DNR Facility Well No. WI Uruque Well No. Common Well Name						i		-	ct		e Eleva	E \	401	Borehole Drameter 2 inches					
Borng Location State Plane N. E S/C/N						N L	at 43	۶۲'۶	4"N	Local Grid Location (If applicable)									
5E 1/4 of NW 1/4 of Section 29. T 8 N. R 10 (EN						y l Lon	8 85°	20'C	7 <u>8.M</u>		Fo	24 🗆			Feet				
County Dane DNR County Code Civil Town/City/ or Village																			
Sam	mole v e										c	Soil	Prope	rties					
J 0	.j.	Cour	in F	Soil/Rock Description And Geologic Origin	For		တ	. <u>u</u>	- E	₽	lard ratio	ure	_	ز	0	nonts			
Number	Length Recovered (in)	Blow Counts	Depth in Feet	Each Major Unit Logged by Steve &	Fathe &	d'	nsc	Graphic Log	Well Diagram	PID/FID	Standard Penetration	Moisture Content	Liquid	Plastic Limit	P 200	ROD/ Comments			
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		ertlify	that	the information on this form	is true	and c	orrect	to th	ne be	st of	my kr	owle	dqe.						
Signa:	ture :	\$1	ev	à Salfiele		Firm	B 7	,-Z	In	c.									
				y Chapters 144.147 and 162, Wis. S 5,000 for each violation. Fined not															
				Each day of continued violation is a															
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MONITORING POINT INSTALLATION RECORD JOB NAME MADISON ANGB MONITORING POINT NUMBER CPTIS JOB NUMBER 722450.09020 INSTALLATION DATE 9/15/94 LOCATION 3.CC SE LE PEL DATUM ELEVATION GROUND SURFACE ELEVATION DATUM FOR WATER LEVEL MEASUREMENT SCREEN DIAMETER & MATERIAL 0.5" ID PVC SLOT SIZE 0.010" RISER DIAMETER & MATERIAL 0.5" ID PVC BOREHOLE DIAMETER 1.8" CONE PENETROMETER CONTRACTOR CORP OF ENGINEERS ES REPRESENTATIVE MS DM

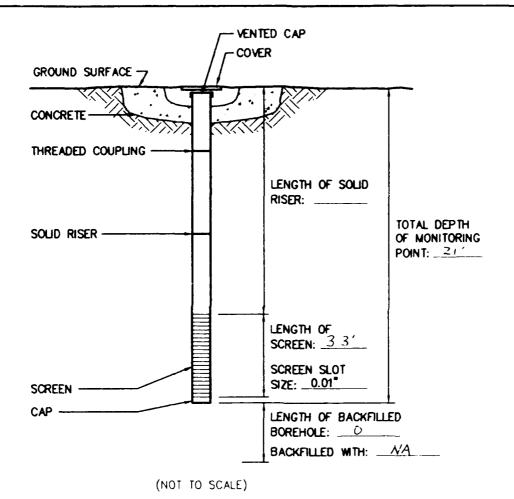


STABILIZED WATER LEVEL No Water FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 10.58 FEET BELOW DATUM.

GROUND SURFACE _______FEET

MONITORING POINT INSTALLATION RECORD					
JOB NAME MADISON ANGB	MONITORING POINT NUMBER (PT 10)				
JOB NUMBER 722450.09020 INSTALLATION DATE	9/15/94 LOCATION 366 SELT PCE				
DATUM ELEVATION	GROUND SURFACE ELEVATION				
DATUM FOR WATER LEVEL MEASUREMENT					
DATUM FOR WATER LEVEL MEASUREMENT SCREEN DIAMETER & MATERIAL IDPVC					
	SLOT SIZE O O O O O O O O O O O O O O O O O O O				

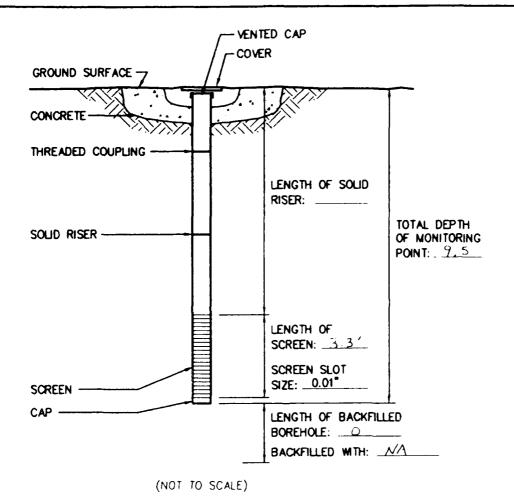


STABILIZED WATER LEVEL 11.04 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 20.52 FEET BELOW DATUM.

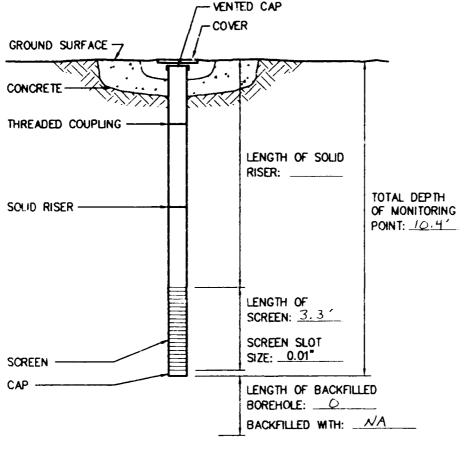
GROUND SURFACE ______ FEET

MONITORING POINT INSTALLATION RECORD					
JOB NAME MADISON ANGE	MONITORING POINT NUMBER APTHS				
JOB NUMBER 722450.09020 INSTALLATION DATE	4/4/14 LOCATION S of POL				
D. Dur di di constanti	COOLING CHOEACE ELEVATION				
DATUM ELEVATION	GROUND SURFACE ELEVATION				
DATUM FOR WATER LEVEL MEASUREMENT					
DATUM FOR WATER LEVEL MEASUREMENT SCREEN DIAMETER & MATERIAL O. 5 " PVC	SLOT SIZE				
DATUM FOR WATER LEVEL MEASUREMENT	SLOT SIZE SOREHOLE DIAMETER/_ &				



MONITORING POINT INSTAI	LLATION RECORD
JOB NAME MADISON ANGB	
JOB NUMBER 722450.09020 INSTALLATION DATE	1/14/94 LOCATION S. J. P.C.L.
DATUM ELEVATION GF	ROUND SURFACE FLEVATION
DATUM FOR WATER LEVEL MEASUREMENT	
SCREEN DIAMETER & MATERIAL 6.5' ID PVC	
RISER DIAMETER & MATERIAL ID PVC	
CONE PENETROMETER CONTRACTOR CORP of ENGINEERS	ES REPRESENTATIVE MS DM
VENTE	ED CAP
/_cover	
GROUND SURFACE -7	
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CONCRETE	
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THREADED COUPLING	
	151071 05 0010
	LENGTH OF SOLID RISER:
SOUD RISER	TOTAL DEPTH OF MONITORING
	POINT: _19.5
	LENGTH OF SCREEN: 3.3
/ H	SCREEN SLOT SIZE:0.01"
	SIZE,
f .	LENGTH OF BACKFILLED
	BOREHOLE:O
	BACKFILLED WITH: NA
(NOT TO SCALE)	
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]
STABILIZED WATER LEVEL 7.97 FEET BELOW DATUM.	
TOTAL MONITORING POINT DEPTH 18.15 FEET BELOW DATUM.	
CROUND CHOCKOC CCC	i

JOB NAME MADISON ANGE	NG POINT INSTALLATION RECORD MONITORING POINT NUMBER CPT5> INSTALLATION DATE 9/14/74 LOCATION SE at POL
	GROUND SURFACE ELEVATION
DATUM FOR WATER LEVEL MEASUR	REMENT
SCREEN DIAMETER & MATERIAL -	2.5" ID PVC SLOT SIZE O. CIO"
RISER DIAMETER & MATERIAL	BOREHOLE DIAMETER 18"
CONE PENETROMETER CONTRACTO	CORP OF ENGINEERS ES REPRESENTATIVE MS DM
GROUND SURFA	CE 7 VENTED CAP



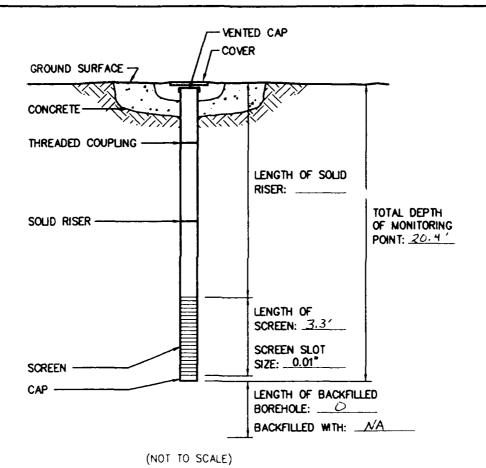
(NOT TO SCALE)

STABILIZED WATER LEVEL 8.28 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 16.07 FEET BELOW DATUM.

GROUND SURFACE ______ FEET

MONITORING POINT INSTALLATION RECORD JOB NAME MADISON ANGE MONITORING POINT NUMBER CPT5D JOB NUMBER 722450.09020 INSTALLATION DATE 9/14/94 LOCATION SE SE POL DATUM ELEVATION GROUND SURFACE ELEVATION DATUM FOR WATER LEVEL MEASUREMENT SCREEN DIAMETER & MATERIAL 0.5" ID PVC SLOT SIZE 0.010" RISER DIAMETER & NATERIAL 0.5" ID PVC BOREHOLE DIAMETER 1.8" CONE PENETROMETER CONTRACTOR CORP OF ENGINEERS ES REPRESENTATIVE NS DM

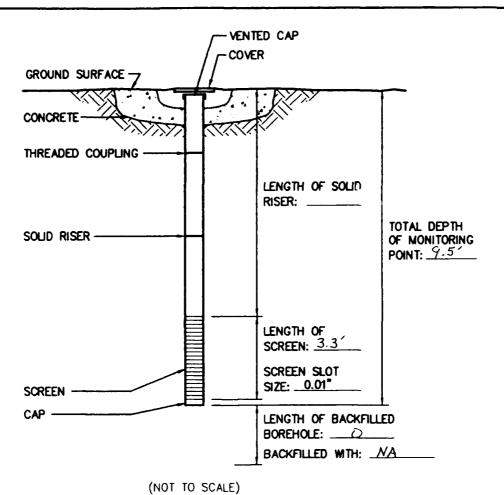


STABILIZED WATER LEVEL 8.24 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH $\frac{20.24}{1000}$ FEET BELOW DATUM.

GROUND SURFACE ______ FEET

MONITORING POINT INSTALLATION RECORD					
	MONITORING POINT NUMBER LPT 155				
JOB NUMBER 722450.09020 INSTALLATION DATE	9/14/97 LOCATION 5 of BIds 414				
DATUM ELEVATION	GROUND SURFACE ELEVATION				
DATUM FOR WATER LEVEL MEASUREMENT					
SCREEN DIAMETER & MATERIAL D. 5" ID PVC					
RISER DIAMETER & MATERIAL D.5" ID PVC	BOREHOLE DIAMETER				
CONE PENETROMETER CONTRACTORCORP of ENGINEE	RS ES REPRESENTATIVE MS DM				

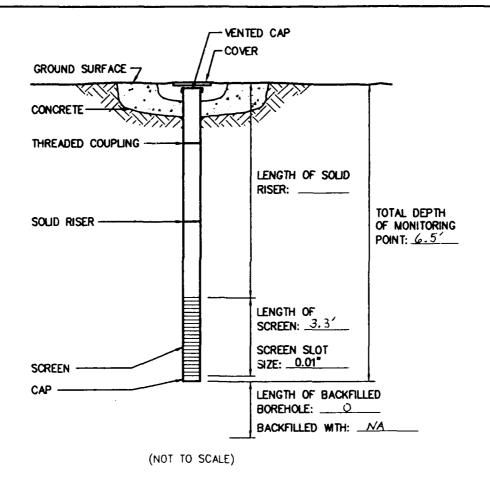


STABILIZED WATER LEVEL 5.54 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 90 FEET BELOW DATUM.

GROUND SURFACE ______ FEET

MONITORING POINT INSTALLATION RECORD JOB NAME MADISON ANGB MONITORING POINT NUMBER CPT175 JOB NUMBER 722450.09020 INSTALLATION DATE 9/14/94 LOCATION SW & BIdg 4/2 DATUM ELEVATION GROUND SURFACE ELEVATION DATUM FOR WATER LEVEL MEASUREMENT SCREEN DIAMETER & MATERIAL 0.5 ID PVC BOREHOLE DIAMETER 1.8" CONE PENETROMETER CONTRACTOR CORP OF ENGINEERS ES REPRESENTATIVE MS DM

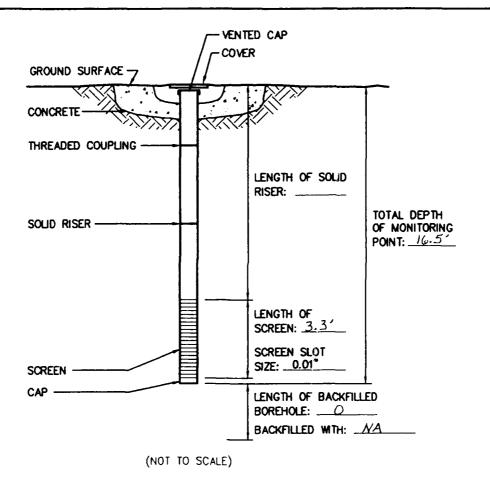


STABILIZED WATER LEVEL 3.15 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 4.12 FEET BELOW DATUM.

GROUND SURFACE FEET

MONITORING POINT INSTALLATION RECORD					
JOB NAME MADISON ANGE	MONITORING POINT NUMBER <u>CPT 17D</u>				
JOB NUMBER	9/14/94 LOCATION SW & BHQ 412				
DATUM ELEVATION					
DATUM FOR WATER LEVEL MEASUREMENT					
SCREEN DIAMETER & MATERIAL _0.5" ID PYC	SLOT SIZE O. OIC"				
	SLOT SIZE COCC" BOREHOLE DIAMETER 18"				

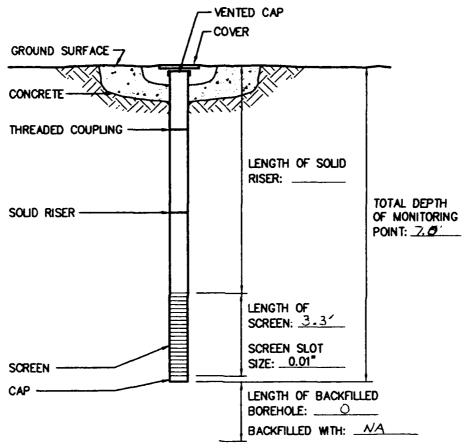


STABILIZED WATER LEVEL 3.46 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 16.64 FEET BELOW DATUM.

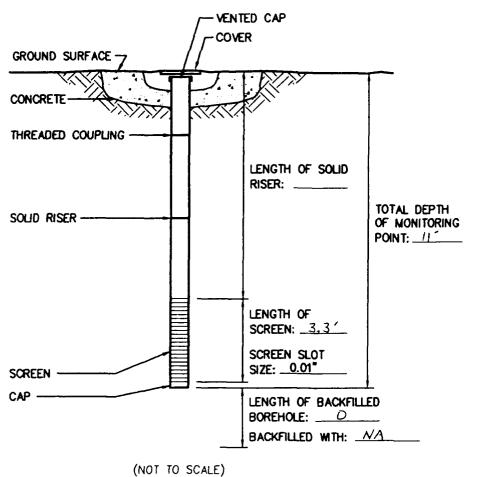
GROUND SURFACE FEET

MONITORING POINT INSTALLATION RECORD					
JOB NUMBER 722450.09020 INSTALLATION DAT	MONITORING POINT NUMBER CPTIBS E 9/14/94 LOCATION Bkgd - NW of Bidg 114 add mt 0				
DATUM ELEVATION					
RISER DIAMETER & MATERIAL	BOREHOLE DIAMETER				
	ÆNTED CAP				



(NOT TO SCALE)

MONITORING POINT INST	ALLATION RECORD
JOB NAME MADISON ANGE	MONITORING POINT NUMBER <u>CFT 195</u>
JOB NUMBER 722450.09020 INSTALLATION DATE	9/15/94 LOCATION SWEETNET OF BIDG 462
DATUM ELEVATION	
DATUM FOR WATER LEVEL MEASUREMENT	
SCREEN DIAMETER & MATERIAL D.5" ID PVC	SLOT SIZE O. OIO"
RISER DIAMETER & MATERIAL	
CONE PENETROMETER CONTRACTOR CORP of ENGINEE	RS ES REPRESENTATIVE MS DM
	7-7-



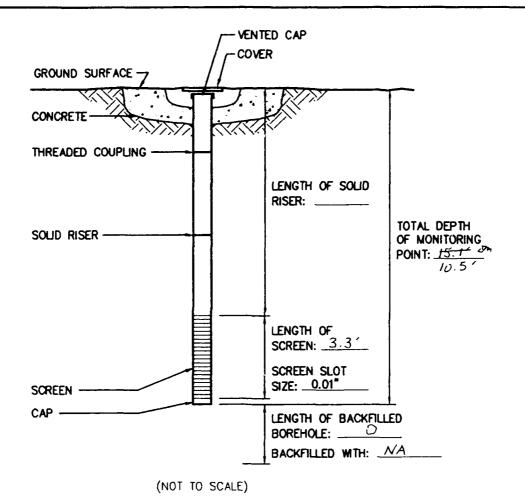
STABILIZED WATER LEVEL 8.48 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 10.88 FEET BELOW DATUM.

GROUND SURFACE ______ FEET

94DN0983, 09/01/94 at 13:22

MONITORING POINT INSTALLATION RECORD				
JOB NAME MADISON ANGB	MONITORING POINT NUMBER CPTZOS			
JOB NUMBER 722450.09020 INSTALLATION DATE	9/15/94 LOCATION E of Blug 415			
DATUM ELEVATION	GROUND SURFACE ELEVATION			
DATUM FOR WATER LEVEL MEASUREMENT				
SCREEN DIAMETER & MATERIAL 0.5 ID PVC				
RISER DIAMETER & MATERIALU.5 ' ID PVC				
CONE PENETROMETER CONTRACTORCORP_ of ENGINEE	RS ES REPRESENTATIVE MS DM			



STABILIZED WATER LEVEL 6.992 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 6.05 FEET BELOW DATUM.

GROUND SURFACE FEET

80226

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. nin. Code, whichever is applicable. Also, see instructions on back. GENERAL INFORMATION (2) FACILITY NAME Original Well Owner (If Known) County Well/Drillhole/Borehole Location DANE AS BELOW Present Well Owner SE 1/4 of NW 1/4 of Sec. 29 : T. 8 N. R. 10 WISCONSIN AIR NATIONAL GUARD (If applicable) Street or Route 3110 MITCHELL Grid Number ST. Gov't Lot City, State, Zip Code **Grid Location** ft. | E. | W. MADISON 53704 ft. N. S., Civil Town Name Facility Well No. and/or Name (Il Applicable) | WI Unique Well No. CPT1- Fiber Street Address of Well Reason For Abandonment 3110 MITCHELL TERMINATION OF BORING Date of Abandonment City, Village MADISON WELL/DRILLHOLE/BOREHOLE INFORMATION (4) Depth to Water (Feet) (3) Original Well/Drillhole/Borehole Construction Completed On Pump & Piping Removed? Yes No No Applicable (Date) Liner(s) Removed? Yes No Not Applicable Yes No Not Applicable Screen Removed? Monitoring Well Construction Report Available? Casing Left in Place? ☐ Yes 🛛 No ☐ Water Well If No. Explain THIS Drillhole iS BORING. NOT A WELL M Borehole Yes X No Was Casing Cut Off Below Surface? Yes 🗌 No Did Sealing Material Rise to Surface? onstruction Type: ☐ Dug Did Material Settle After 24 Hours? ☐ Yes 🛛 No Drilled Driven (Sandpoint) If Yes, Was Hole Retopped? ☐ Yes ☐ No Other (Specify) DRIVEN W/ CONE PENETROMETER (5) Required Method of Placing Sealing Material Formation Type: Conductor Pipe-Pumped Conductor Pipe-Gravity ☐ Bedrock Unconsolidated Formation Dump Bailer Other (Explain) Total Well Depth (ft.) 25.1 Casing Diameter (ins.) N/A Sealing Materials For monitoring wells and Neat Cement Grout (From groundsurface) monitoring well boreholes only Sand-Cement (Concrete) Grout Concrete Casing Depth (ft.) ☐ Bentonite Pellets Clay-Sand Slurry Granular Bentonite Yes No Unknown ☐ Bentonite-Sand Slurry Bentonite - Cement Grout Was Well Annular Space Grouted? If Yes, To What Depth? Chipped Bentonite No. Yards, $\overline{\sigma}$ Sacks Sealant or Volume Mix Ratio or Mud Weight Sealing Material Used To (Ft.) From (FL) Surface Portland Coment Grout 25. l Comments: THIS IS A SOIL BORING WELL NOT (10) FOR DNR OR COUNTY USE ONLY Name of Person or Firm Doing Sealing Work Swanson Parsons Engineering Science, la Date Received/Inspected District/County/ on Doing Work Date Signed 1 9 95 Reviewer/Inspector Telephone Number Street or Route Ste. 900 1700 Broadway, (303)831-8100 Follow-up Necessary City State, Zip Code

80226

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. nin. Code, whichever is applicable. Also, see instructions on back. GENERAL INFORMATION (2) FACILITY NAME Original Well Owner (If Known) Well/Drillhole/Borehole Location DANE AS BELOW Present Well Owner ΣE 8 NR 10 SE 1/4 of NW 1/4 of Sec. 29 WISCONSIN AIR NATIONAL GUARD (If applicable) Street or Route 3110 MITCHELL Grid Number ST. Gov't Lot City, State, Zip Code Grid Location ft. | E. | W. MADISON 53704 ft. N. S., Facility Well No. and/or Name (Il Applicable) | WI Unique Well No. Civil Town Name CPT2 - Fiber Street Address of Well Reason For Abandonment 3110 MITCHELL TERMINATION OF BORING City, Village Date of Abandonment 4/12/94 MADISON WELL/DRILLHOLE/BOREHOLE INFORMATION (3) Original Well/Drillhole/Borehole Construction Completed On (4) Depth to Water (Feet) Yes No No Not Applicable Pump & Piping Removed? (Date) Liner(s) Removed? Yes No No Not Applicable Yes No No Applicable Screen Removed? Construction Report Available? Monitoring Well ☐ Yes ☑ No Casing Left in Place? ☐ Yes 🗵 No ☐ Water Well If No. Explain Tris ☐ Drillhole 15 BORING. NOT A WELL D Borehole Was Casing Cut Off Below Surface? Yes X No X Yes No Did Sealing Material Rise to Surface? Construction Type: □ Drilled ☐ Dug Did Material Settle After 24 Hours? ☐ Y∝ 🛛 No Driven (Sandpoint) If Yes, Was Hole Retopped? ☐ Yes ☐ No Diher (Specify) DRIVEN W/ CONE PENETRONETER (5) Required Method of Placing Sealing Material Formation Type: Conductor Pipe-Gravity Conductor Pipe-Pumped ☐ Bedrock ☑ Unconsolidated Formation Dump Bailer Other (Explain) Total Well Depth (ft.) 25.5 Casing Diameter (ins.) N/A Sealing Materials For monitoring wells and Neat Cement Grout (From groundsurface) monitoring well boreholes only Sand-Cement (Concrete) Grout ☐ Concrete Casing Depth (ft.) Bentonite Pellets Clay-Sand Slurry Granular Bentonite Was Well Annular Space Grouted? Yes No Unknown ☐ Bentonite-Sand Slurry Bentonite - Cement Grout Chipped Bentonite If Yes, To What Depth? $\overline{\sigma}$ No. Yards, Mix Ratio or Mud Weight Sealing Material Used From (FL) To (Ft.) Sacks Sealant or Volume Surface Portland Coment Grout Comments: BURING. THIS IS A SOIL NOT A WELL (10) FOR DNR OR COUNTY USE ONLY Name of Person or Firm Doing Sealing Work Mother A. Swarson Parsons Engineering Science, he Date Received/Inspected District/County on Doing Work Date Signed 9 195 A I Reviewer/Inspector Telephone Number Ste. 900 1700 Broadway, (303)83(-8100 Follow-up Necessary City, State, Zip Code

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

GENERAL INFORMATION	ON	(2) FA	CILI	TY NAME		
Well/Drillhole/Borehole	County	On	إعماع	Well Owner	(If Known)	
Location	DANE			BELOW		
	Z ⊠ E	Pre	scnt /	Well Owner		
SE 1/4 of NW 1/4 of Sec.	29 : T. 8 N. R. 10 W			CNSIN	AIR NAT	TONAL GUARD
(If applicable)		· ·		Route		
Gov't Lot	Grid Number	3	110	MITCH	FLL ST.	
Grid Location				ate, Zip Cod		
	S., <u>ft.</u> E. W.	M	<u>10 a</u>	SON, 1	<i>۱</i> ۱ الر	3709 pplicable) WI Unique Well No.
Civil Town Name		Fac	pri ,	Well No. and	or Name (II Ap	plicable) WI Unique Well No.
				2-501		<u> </u>
Street Address of Well		Rea	son l	For Abandon	ment	
	st,			MINATIO		SORING
City, Village		Dat	c of A	Abandonmen	_	
MADISON				115194	<u> </u>	
ELL/DRILLHOLE/BOREHO				<i>F</i>		
Original Well/Drillhole/Boreho	-	1		Water (Feet		
(Date) 9/15/94	4	•	-	Piping Remo	oved?	Yes 🗌 No 🔀 Not Applicable
	•	1		Removed?		Yes No No Not Applicable
Monitoring Well	Construction Report Available?	ľ		emoved?		Yes 🔲 No 🔀 Not Applicable
☐ Water Well	☐ Yes 🔼 No		_	eft in Place?		Yes 🔯 No
Drillhole		It N	o, E	uplain TH	IS IS A	BORING, NOT A WELL
☑ Borehole	•					
		(•	Below Surface?	
Construction Type:		Did	Seal	ing Material	Rise to Surface	Yes No
¶ Drilled □ Dri	ven (Sandpoint) Dug	1			fter 24 Hours?	\[\begin{align*} Y\\ \emptyset \] \[\begin{align*} Y\\\ \emptyset \] \[\begin{align*} Y\\\\ \emptyset \] \[\begin{align*} Y\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Other (Specify) DRIVEN	WI CONE PENETRONETER	If	Yes,	Was Hole R	etopped?	Yes □ No
		(5) Req	uired	Method of P	lacing Sealing l	Material
Formation Type:	_	Гπ	Cond	uctor Pipe-G	ravity 🗖	Conductor Pipe-Pumped
Unconsolidated Formation	☐ Bedrock	_		Bailer		Other (Explain)
Total Well Depth (ft.) 1.5	Casing Diameter (ins.) NA			Materials		For monitoring wells and
(From groundsurface)	_ · · · · · · · · · · · · · · · · · · ·		_	Cement Grou	18	monitoring well poreholes only
(2.10.11.20.11.20.1)					ncrete) Grout	
Casing Depth (ft.) NA		_	Conc		,	! Bentonite Pellets
congression in its	_	_		Sand Slurry		Granular Bentonite
Was Well Annular Space Group	eci? Yes No Unknown		•	onite-Sand SI	urv	Bentonite - Cement Crout
If Yes, To What Depth?	Feet			ped Bentonite		1 Demonte - Content 110m
n 165, 10 What Deputi		<u> </u>	Ciup	POLIDICAL POLICE		
Sealing M	laterial Used	From (Fu	To (Ft.)	No. Yards, Sacks Sealant	Mix Ratio or Mud Weight
		ļ		(*)	or Volume	ļ
-4-10		Surfa	æ	15		
orthand Coment Gra	001	<u> </u>		1.5		<u> </u>
						1
		1				
						ì
				-		
Comments: THIS IS A	SOIL BORING, NOT	A WĒ	LL			
<u> </u>						
Name of Person or Firm Doing	Sealing Work		(10)	***FOR		OUNTY USE ONLY
Name of Person or Firm Doing Mother A. Swarcon	Sealing Work Parsons Engineering Science, la		(10)			OUNTY USE ONLY District/County
Name of Person or Firm Doing	Sealing Work Porsons Engineering Science, lactic rk [Date Signed]		(10) Date	FOR Roceived/Insp	ected	**************************************
Name of Person or Furn Doing Matthew A. Swance Signatury of Descriptioning Wor	Sealing Work Passons Engineering Science, lar rk Date Signed 1 9 95		(10) Date	***FOR	ected	**************************************
Name of Person or Firm Doing Mother A. Swarch Signatury of Person Doing Wor	Sealing Work Parsons Engineering Science, lar rk Date Signed 1 9 95 Telephone Number		(10) Date	FOR Roceived/Insp	ected	**************************************
Name of Person or Furn Doing Matthew A. Swancen Signatury of Descriptions Wor	Sealing Work Parsons Engineering Science, lar rk Date Signed 1 9 95 Telephone Number		(10) Date Revie	FOR Roceived/Insp	ected	

80226

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. nin. Code, whichever is applicable. Also, see instructions on back. -, GENERAL INFORMATION (2) FACILITY NAME Original Well Owner (If Known) County Well/Drillhole/Borehole DANE AS BELOW Present Well Owner ⊠ E SE 1/4 of NW 1/4 of Sec. 29; T. WISCONSIN AIR NATIONAL GUARD Street or Route (If applicable) 3110 MITCHELL **Grid Number** Gov't Lot City, State, Zip Code Grid Location ft. N. S., ft. | E. | W. MADISON 3704 Facility Well No. and/or Name (If Applicable) Civil Town Name WI Unique Well No. CPT2-501 Street Address of Well Reason For Abandonment 31i0 MITCHELL TERMINATION ST. Date of Abandonment City, Village MADISON WELL/DRILLHOLE/BOREHOLE INFORMATION Original Well/Drillhole/Borehole Construction Completed On (4) Depth to Water (Feet) Yes No 🔀 Not Applicable (Date) Pump & Piping Removed? Liner(s) Removed? Yes No Not Applicable Screen Removed? Construction Report Available? Yes No Not Applicable Casing Left in Place? Yes 🔯 No ☐ Water Well If No. Explain Trt15 15 ☐ Drillhole BORING, NOT A WELL A ⊠ Borehole Yes X No Was Casing Cut Off Below Surface? Did Sealing Material Rise to Surface? X Yes ☐ No Construction Type: Dug Yes 🛛 No Did Material Settle After 24 Hours? Drilled ☐ Driven (Sandpoint) If Yes, Was Hole Retopped? ☐ Yes ☐ No Other (Specify) DRIVEN W/ CONE PENETROMETER (5) Required Method of Placing Sealing Material Formation Type: Conductor Pipe-Gravity Conductor Pipe-Pumped ☐ Bedrock Unconsolidated Formation Other (Explain) Dump Bailer Total Well Depth (ft.) 1.5 Casing Diameter (ins.) N/A (6) Sealing Materials For monitoring wells and monitoring well boreholes only Neat Cement Grout (From groundsurface) Sand-Cement (Concrete) Grout Concrete Casing Depth (ft.) Bentonite Pellets Clay-Sand Slurry Granular Bentonite Yes No Unknown ■ Bentonite-Sand Slurry Bentonite - Cement Grout Was Well Annular Space Growted? If Yes, To What Depth? Chipped Bentonite No. Yards, Sacks Sealant or Volume Mix Ratio or Mud Weight Sealing Material Used From (FL) To (Ft.) Surface Portland Coment Grout (8) Comments: BORING THIS WELL NOT (10) FOR DNR OR COUNTY USE ONLY Name of Person or Firm Doing Sealing Work Date Received/Inspected District/County Swauson / Parsons Engineering Science, la Signature of Depson Doing Work Date Signer 119 195 Telephone Number Ste. 900 1700 Broadway, (303)83(-8100 Follow-up Necessary City State, Zip Code

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Inc. Code, whichever is applicable. Also, see instructions on back.

GENERAL INFORMATION	(2) FACILITY NAME						
Well/Drillhole/Borehole County	Original Well Owner (If Known)						
Location DANE	AS BELOW						
∑ E	Present Well Owner						
SE 1/4 of NW 1/4 of Sec. 29; T. 8 N. R. 10 1 W	WISCONSIN AIR NATIONAL GUARD						
(If applicable)	Street or Route						
Gov't Lot Grid Number	3110 MITCHELL ST.						
Grid Location	City, State, Zip Code						
ft. N. S., ft. E. W.	MADISON, WI 53704						
Civil Town Name	Facility Well No. and/or Name (If Applicable) WI Unique Well No.						
	CPT2 - Soil Sample #3						
Street Address of Well	Reason For Abandonment						
2110							
City, Village	TERMINATION OF BORING Date of Abandonment						
	91/5/04						
MADISON WELL/DRILLHOLE/BOREHOLE INFORMATION	1						
Original Well/Drillhole/Borehole Construction Completed On	(4) Depth to Water (Feet) 7.5						
Of a first weight middle Boreigne Construction Completed On							
(Date) 9115 M4	Pump & Piping Removed? Yes No S Not Applicable						
——————————————————————————————————————	Liner(s) Removed? Yes No Not Applicable						
Monitoring Well Construction Report Available?	Screen Removed? Yes No Not Applicable						
☐ Water Well ☐ Yes 🖾 No	Casing Left in Place? Yes No						
Drillhole	IT No. Explain THIS IS A BORING, NOT A WELL						
⊠ Borehole							
A Polazio	Was Casing Cut Off Below Surface? Yes X No						
Construction Type:	Did Sealing Material Rise to Surface? X Yes No						
	Did Material Settle After 24 Hours? Yes No						
-C	If Yes, Was Hole Recopped? Yes \(\cap No)						
Other (Specify) DRIVEN W/ CONE PENETROMETER							
m	(5) Required Method of Placing Sealing Material						
Formation Type:	Conductor Pipe-Gravity Conductor Pipe-Pumped						
☐ Bedrock	Dump Bailer Other (Explain)						
Total Well Depth (ft.) 7.5 Casing Diameter (ins.) NA	(6) Sealing Materials For monitoring wells and						
• • • — —							
(From groundsurface)	1 						
a: 2	Sand-Cement (Concrete) Grout						
Casing Depth (ft.) N/A	Concrete Bentonite Pellets						
	Clay-Sand Slurry Granular Bentonite						
Was Well Annular Space Grouted? Yes No Unknown	, _ , _ , _ , _ , _ , _ , _ , _ , _ , _						
If Yes, To What Depth? Feet	Chipped Bentonite						
)	No. Yards,						
Sealing Material Used	From (FL) To (FL) Sacks Sealant Mix Ratio or Mud Weight						
	or Volume						
Portland Coment Growt	Surface 75						
et 11000 CEMENT GLOUT							
3) Comments: This is A SOIL BORING, NOT	A WELL						
Name of Person or Firm Doing Sealing Work	(10) FOR DNR OR COUNTY USE ONLY						
Mathew A. Swanson Parsons Engineering Science, he	Date Received/Inspected ////////////////////////////////////						
Signature of Derson Doing Work Date Signed							
11/4/11/11/19/95	Reviewer/Inspector						
Street or Route Telephone Number							
100 Broadway, Ste. 900 (303)831-8100	Follow-up Necessary						
	Politiw-up (1000541)						
City State, Zip Code	and the second and th						
-							

Ste. 900

80226

(303)831-8100

100 Broadway

City, State, Zip Code

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. nin. Code, whichever is applicable. Also, see instructions on back. GENERAL INFORMATION (2) FACILITY NAME Original Well Owner (If Known) County Well/Drillhole/Borehole Location DANE AS BELOW Present Well Owner ⊠ E SE 1/4 of NW 1/4 of Sec. 29 N. R. WISCONSIN AIR NATIONAL GUARD Street or Route (If applicable) 3110 MITCHELL Gov't Lot Grid Number ST. **Grid Location** City, State, Zip Code MADISON 53704 ft. N. S., ft. [] E. [] W. Facility Well No. and/or Name (If Applicable) WI Unique Well No. Civil Town Name (DT3 - Fiber Reason For Abandonment Street Address of Well 3110 MITCHELL TERMINATIC 1 OF BORING ST. Date of Abandonment
4/13/94 City, Village MADISON ELL/DRILLHOLE/BOREHOLE INFORMATION Original Well/Drillhole/Borehole Construction Completed On (4) Depth to Water (Feet) Y.5 Yes No No Not Applicable Pump & Piping Removed? (Date) Liner(s) Removed? Yes No No Applicable Screen Removed? Yes No No Not Applicable Construction Report Available? Monitoring Well ☐ Y≈ ☐ № Casing Left in Place? ☐ Yes 🗵 No ☐ Water Well If No. Explain Tris BORING. Drillhole A NOT A WELL M Borehole Yes X No Was Casing Cut Off Below Surface? Did Sealing Material Rise to Surface? X Yes No Construction Type: Dug Doiled Yes No Did Material Settle After 24 Hours? Driven (Sandpoint) If Yes, Was Hole Retopped? ☐ Yes ☐ No Other (Specify) DRIVEN W/ CONE PENETRONETER (5) Required Method of Placing Sealing Material Formation Type: Conductor Pipe-Gravity Conductor Pipe-Pumped ☐ Bedrock Unconsolidated Formation Dump Bailer Other (Explain) Total Well Depth (ft.) 15. 2 Casing Diameter (ins.) N/A Sealing Materials For monitoring wells and (From groundsurface) Neat Cement Grout monitoring well boreholes only Sand-Cement (Concrete) Grout Casing Depth (ft.) Concrete Bentonite Pellets Clay-Sand Slurry Granular Bentonite Was Well Annular Space Grouteu? Yes No Unknown ☐ Bentonite-Sand Slurry Bentonite - Cement Grout Chipped Bentonite If Yes, To What Depth? No. Yards, Sacks Sealant or Volume Sealing Material Used Mix Ratio or Mud Weight From (FL) To (Ft) Surface ortland Cement Grout Comments: THIS BORING. WELL A SOIL NOT A (10) FOR DNR OR COUNTY USE ONLY Name of Person or Firm Doing Sealing Work Date Received/Inspected Swanson District/County / Parsons Engineering Science, he son Doing Work iating of De Date Signed 19195 Reviewer/Inspector Street or Route Telephone Number

Follow-up Necessary

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis.

nin. Code, whichever is applicable. Also, see instructions on back.

GENERAL INFORMATION

1(2) FACILITY NAME

GENERAL INFORMATION	A			W WA	3217 · · ·			
Well/Drillhole/Borehole Location	County		-	Well Owner	(If Known)			
UNNE			AS GELOW Present Well Owner					
SE MARKET ZO TO SAR IN THE					A10			
SE 1/4 of NW 1/4 of Sec. 29 ; T. 8 N. R. 10 H			Street or	CNSIN	HIK NAT	IONAL GUARD		
(If applicable)								
Gov't Lot	Grid Number	\vdash	۱۱۵ <u>د .</u>	MITCH are, Zip Code	FLL SI.			
— —	6 U 5 U w		-			3704		
ft. N. S.,	ft.	MADISON WI 53704						
Civil Town Name		Facility Well No. and/or Name (If Applicable) WI Unique Well No.						
			$\mathcal{C}\mathcal{D}\mathcal{I}$		Vopuncl	<u> </u>		
Street Address of Well				or Abandon	_			
3110 MITCHELL ST	· ·	TERMINATION OF BORING						
City, Village		1		Abandonmen				
MADISON			<u> 4//2</u>	5/94				
ELL/DRILLHOLE/BOREHOLE			<u>, , , , , , , , , , , , , , , , , , , </u>	·				
Original Well/Drillhole/Borehole C	onstruction Completed On	(4)	Depth to	Water (Feet	8.5			
(Date) 9/15/94			Pump &	Piping Remo	oved? 🔲 Y	les 🗌 No 🔀 Not Applicable		
			Liner(s) l	Removed?		res 🔲 No 🔀 Not Applicable		
Monitoring Well	Construction Report Available?		Screen R	emoved?	י הַ	(cs No No Not Applicable		
☐ Water Well	☐ Yes 🖾 i√o		_	eft in Place?	1 1	∕⇔ ⊠ No		
Drillhole		3	If No, Ex	plain Trl	IS IS A B	CRING NOT A WELL		
■ Borehole	1							
			Was Cas	ing Cut Off I	Below Surface?	☐ Yes X No		
Construction Type:			Did Seal	ing Material	Rise to Surface?	X Y ≈ No		
	(Sandpoint) Dug		Did Material Settle After 24 Hours? Yes No					
	LONE PENETRONETER		If Yes, Was Hole Retopped? Yes No					
		6	Dagwead	Mathod of D	lacing Sealing M	Liveral Liveral		
Formation Type:								
Unconsolidated Formation	☐ Bedrock	Conductor Pipe-Gravity Conductor Pipe-Pumped						
	,	Dump Bailer Other (Explain)						
Total Well Depth (it.) 12.5	Casing Diameter (ins.) N/A	(6) Sealing Materials For monitoring wells and						
(From groundsurface)	ŕ			Cement Gro		monitoring well boreholes only		
. 1			Sand	-Cernent (Cor	ncrete) Grout			
Casing Depth (ft.) NA		l	Conc		 	Bentonite Pellets		
				Sand Slurry	!	Granular Bentonite		
Was Well Annular Space Grouted?	Yes No Unknown	ſ	☐ Bento	onive-Sand Sl	urry ;	Bentonite - Cement Crout		
If Yes, To What Depth?	Feet		Chip	ped Bentonic	; '			
					No. Yards,			
Sealing Mate	rial Used	Fro	m (Ft.)	To (Ft.)	Sacks Sealant or Volume	Mix Ratio or Mud Weight		
		_			Or volume			
rttand Coment Grow	- [-	S	urface	12.5	į į			
THE CENTER OF THE				<u> </u>				
			}					
								
Comments: THIS IS A	SOIL BORING, NOT A	7 1	WELL					
<u> </u>	SOIL BORING, NOT 1	''	MIL	=				
Vame of Person or Firm Doing Sea	ding Work		(10)	// WFOD	DNROR	DUNTY USE ONLY		
A .(n A	Λ -			Received/Inst		District/County		
Signature of Depson Doing Work	Parsons Engineering Science, luc	l		100	V # 9 9			
ATT THE TOTAL TOTAL WORLD	119 195		Rovie	wer/Inspecto				
Street or Route	Telephone Number		× **	Control of the Control		2.4		
1700 Broadway, Ste. 90	(303)83(-8100		EATLA	or san Massa	m.			
City State Zin Code	3 0 1 310		Lono	w-up Necessa	47			
DONVER CO 8022	6			the comments	The second second second second	ta pasa arang manang manang arang		

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

nin. Code, whichever is applicable. Also, see instructions on back. ., GENERAL INFORMATION (2) FACILITY NAME County Original Well Owner (If Known) Well/Drillhole/Borehole Location DANE AS BELOW Present Well Owner ΣE 8 N. R. 10 SE 1/4 of NW 1/4 of Sec. 29 WISCONSIN AIR NATIONAL GUARD (If applicable) Street or Route 3110 MITCHELL **Grid Number** ST. Gov't Lot City, State, Zip Code Grid Location 53704 ft. N. S., ft. | E. | W. MADISON Civil Town Name Facility Well No. and/or Name (If Applicable) WI Unique Well No. CDT4- Fiber Street Address of Well Reason For Abandonment 3110 MITCHELL TERMINATION OF BORING City, Village Date of Abandonment 9/13/94 MADISON WELL/DRILLHOLE/BOREHOLE INFORMATION (3) Original Well/Drillhole/Borehole Construction Completed On (4) Depth to Water (Feet) 13/94 Pump & Piping Removed? Yes No No Applicable (Date) Liner(s) Removed? Yes No Not Applicable Yes No Not Applicable Screen Removed? ☐ Monitoring Well Construction Report Available? Casing Left in Place? Water Well ☐ Yes 🗵 No If No. Explain Tris is Drillhole BORING. NOT A WELL Borehole Was Casing Cut Off Below Surface? ☐ Yes X No Did Sealing Material Rise to Surface? X Yes No Construction Type: Drilled Dug Did Material Settle After 24 Hours? Yes No Driven (Sandpoint) If Yes, Was Hole Retopped? Yes No Dither (Specify) DRIVEN W/ CONE PENET PONETER (5) Required Method of Placing Sealing Material Formation Type: Conductor Pipe-Pumped Conductor Pipe-Gravity Unconsolidated Formation ☐ Bedrock Dump Bailer Other (Explain) Casing Diameter (ins.) N/A Sealing Materials For monitoring wells and Total Well Depth (ft.) 15.1 Neat Cement Grout (From groundsurface) monitoring well boreholes only Sand-Cement (Concrete) Grout Casing Depth (ft.) Concrete Bentonite Pellets Clay-Sand Slurry Granular Bentonite Yes No Unknown ☐ Bentonite-Sand Slurry Bentonite - Cement Grout Was Well Annular Space Grouted? If Yes, To What Depth? Chipped Bentonite No. Yards, <u>(7)</u> Sacks Sealant or Volume Sealing Material Used Mix Ratio or Mud Weight From (Ft.) To (Ft.) Surface Portland Cement Grout (8) Comments WELL THIS BORING Α SOIL NOT Name of Person or Firm Doing Sealing Work FOR DNR OR COUNTY USE ONLY Date Received/Inspected District/County Swanson Parsons Engineering son Doing Work Reviewer/Inspector 119 195 Telephone Number , YEMPRESIS DOLL Ste. 900 (303)831-8100 Follow-up Necessary City, State, Zip Code 80226

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis.

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

GENERAL INFORMATION		TY NAME	•				
Well/Drillhole/Borehole County	Original Well Owner (If Known)						
Location DANE	A5 1	BELOW					
S = 100 E	1	Well Owner					
SE 1/4 of NW 1/4 of Sec. 29 ; T. 8 N. R. 10 W		MIZNO	AIR NAT	IONAL GUARD			
(If applicable)	Street o						
Gov't Lot Grid Number		MITCH					
Grid Location ft. □ N. □ S ft. □ E. □ W.				3704			
ft. N. S., ft. E. W.	Facility	Well No. and	or Name (II Apr	3704 Dicable) WI Unique Well No.			
CITE TOWN INGINE	CPT	5- Fil	00	, , , , , , , , , , , , , , , , , , , ,			
Street Address of Well	Reason	For Abandon	ment				
3110 MITCHELL ST.	TER	MINATIO	N OF B	ORING			
City, Village		Abandonmen					
MADISON	<u> </u>	9/13/9	4				
WELL/DRILLHOLE/BOREHOLE INFORMATION							
(3) Original Well/Drillhole/Borehole Construction Completed On	1	Water (Feet					
(Date) 9/13/94		Piping Rem	oved?	les 🔲 No 🔀 Not Applicable			
	1	Removed?	י 🗆	les 🔲 No 🔀 Not Applicable			
Monitoring Well Construction Report Available?	II.	Removed?		es No Not Applicable			
☐ Water Well ☐ Yes 🖾 No	_	Left in Place?		′¤ ⊠ №			
Drillhole	II No. E	xplain <u>Trl</u>	IS IS A B	CRING, NOT A WELL			
M Borehole	Was Ca	sing Cut Off I	Below Surface?	Yes X No			
Co-observation Transcr		-	Rise to Surface?	N Yes No			
Construction Type: Drilled Driven (Sandpoint) Dug	1	•	fter 24 Hours?	Yes No			
Drilled Driven (Sandpoint) Dug Douber (Specify) DRIVEN W/ CONE PENETROMETER	L .	, Was Hole R	=	Yes No			
DRIVEY 11 COME TO THE THE TELL	(C) Paguira	d Marhad of P	lacing Sealing M				
Formation Type:	I'' —		·	onductor Pipe-Pumped			
Unconsolidated Formation Bedrock	Dum	ductor Pipe-G		Onductor Pipe-Pumped Other (Explain)			
Total Well Depth (ft.) 16.0 Casing Diameter (ins.) NA	(6) Sealing			For monitoring wells and			
(From groundsurface)		Cement Gro	ut	monitoring well boreholes only			
(1 ==	i-Cement (Co					
Casing Depth (ft.) N/A	Con	arete	!	Bentonite Pellets			
	Clay	-Sand Slurry		Granular Bentonite			
Was Well Annular Space Grouted? Yes 🗌 No 🗍 Unknown		tonite-Sand SI		Bentonite - Cement Grout			
If Yes, To What Depth?	Chip	pped Bentonite	; '				
Ø S. W. CHILL		m	No. Yards,	Mix Ratio or Mud Weight			
Sealing Material Used	From (FL)	To (Ft.)	or Volume	MIX Ratio of Mud Weight			
Dulin	Surface	15-1					
Proctland Consider Consider	1	15.0					
Portland Coment Growt							
TOT TOWN COMENT GROUT							
TOT TOMO (COMENT GROUT							
TOUTOMO (EMENT GROUT							
TOUTOMB (EMENT GROUT							
TOUTOMO (COMENT GROUT)							
	A WELL						
	A WELL						
(8) Comments: THIS IS A SOIL BORING, NOT			DNR OR C	OUNTY*USE*ONLY			
(8) Comments: THIS IS A SOIL BORING, NOT Name of Person or Firm Doing Sealing Work Matthew A. Swanson Parsons Engineering Science, he	(10)			OUNTY USE ONLY District/County			
(8) Comments: THIS IS A SOIL BORING, NOT Name of Person or Firm Doing Sealing Work Matthew A. Swanson Parsons Engineering Science, he Signatury of Depond Doing Work Date Signed	(10) Date	FOF Received/Ins	ected.				
(8) Comments: THIS IS A SOIL BORING, NOT Name of Person or Firm Doing Sealing Work Mathew A. Swarson Parsons Engineering Science, In Signatury of Person Doing Work 1 9 95	(10) Date	FOR	ected.				
(8) Comments: THIS IS A SOIL BORING, NOT Name of Person or Firm Doing Sealing Work Matthew A. Swarson Parsons Engineering Science, In Signatury of Person Doing Work Date Signed 1995 Street or Route Telephone Number	(10) Date	FOF Received/Insp ewer/Inspecto	ected				
(8) Comments: THIS IS A SOIL BORING, NOT Name of Person or Firm Doing Sealing Work Mathew A. Swarson Parsons Engineering Science, In Signatury of Person Doing Work 1 9 95	(10) Date	FOF Received/Ins	ected				

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. vin. Code, whichever is applicable. Also, see instructions on back. (2) FACILITY NAME GENERAL INFORMATION Original Well Owner (If Known) County Well/Drillhole/Borehole Location DANE AS BELOW Present Well Owner ΣΕ SE 1/4 of NW 1/4 of Sec. 29; T. 8 N. R. 10 WISCONSIN AIR NATIONAL GUARD (If applicable) Street or Route 3110 MITCHELL **Grid Number** Gov't Lot City, State, Zip Code Grid Location ft. | N. | S., ft. | E. | W. MADISON 53704 Facility Well No. and/or Name (If Applicable) Civil Town Name WI Unique Well No. CPTG- Fiber Street Address of Well Reason For Abandonment 3110 MITCHELL TERMINATION OF BORING City, Village Date of Abandonment MADISON 144 WELL/DRILLHOLE/BOREHOLE INFORMATION (3) Original Well/Drillhole/Borehole Construction Completed On Depth to Water (Feet) Yes No No Not Applicable Pump & Piping Removed? Liner(s) Removed? Yes No Not Applicable Yes 🔲 No 🔯 Not Applicable Screen Removed? Construction Report Available? Monitoring Well ☐ Yes 🛛 No Casing Left in Place? Yes 🔯 No ☐ Water Well If No. Explain THIS Drillhole 15 BORING NOT A WELL N Borehole Was Casing Cut Off Below Surface? Yes X No Did Sealing Material Rise to Surface? **⊠** Y≈ □ № Construction Type: Drilled Dug Did Material Settle After 24 Hours? ☐ Yes 🛛 No Driven (Sandpoint) If Yes, Was Hole Retopped? Other (Specify) DRIVEN WI CONE PENETRONETER ☐ Yes ☐ No (5) Required Method of Placing Sealing Material Formation Type: Conductor Pipe-Gravity Conductor Pipe-Pumped Unconsolidated Formation ☐ Bedrock Dump Bailer Other (Explain) Total Well Depth (ft.) 19.7 Casing Diameter (ins.) N/A Sealing Materials For monitoring wells and Neat Cement Grout (From groundsurface) monitoring well boreholes only Sand-Cement (Concrete) Grout Concrete Casing Depth (ft.) Bentonite Pellets Clay-Sand Slurry Granular Bentonite Was Well Annular Space Grouted? Yes No Unknown ☐ Bentonite-Sand Slurry Bentonite - Cement Grout If Yes, To What Depth? Chipped Bentonite (n) No. Yards, Sacks Sealant or Volume Sealing Material Used Mix Ratio or Mud Weight From (Ft.) To (Ft.) Surface Portland Coment Growt (8) Comments: THIS IS A SOIL BORING NOT WELL Vame of Person or Firm Doing Sealing Work (10) FOR DNR OR COUNTY USE ONLY Date Received/Inspected Matthew A. Swanson Parsons Engineering Science, he District/County. son Doing Work Date Signed Signature of Den 119 195 Reviewer/Inspector an Kalendaria Street or Route Telephone Number 1700 Broadway, Ste. 900 (303)83(-8100 Follow-up Necessary City, State, Zip Code 80226

80226

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. nin. Code, whichever is applicable. Also, see instructions on back. GENERAL INFORMATION (2) FACILITY NAME Original Well Owner (If Known) County Well/Drillhole/Borehole Location DANE AS BELOW Present Well Owner ⊠ E W 8_ N; R. <u>10</u> SE 1/4 of NW 1/4 of Sec. 29; T. WISCONSIN AIR NATIONAL GUARD Street or Route (If applicable) 3110 MITCHELL Gov't Lot **Grid Number** ST. City, State, Zip Code Grid Location 53704 ft. N. S., ft. 🔲 E. 🔲 W. MADISON Facility Well No. and/or Name (If Applicable) WI Unique Well No. Civil Town Name ^PT7-Fiber Reason For Abandonment Street Address of Well 3110 MITCHELL ST. TERMINATION OF BORING City, Village Date of Abandonment 13/94 MADISON WELL/DRILLHOLE/BOREHOLE INFORMATION (4) Depth to Water (Feet) (3) Original Well/Drillhole/Borehole Construction Completed On 1,3194 Pump & Piping Removed? Yes No No Applicable (Date) Liner(s) Removed? Yes No Not Applicable Yes No Not Applicable Screen Removed? Construction Report Available? ☐ Monitoring Well Yes 🔯 No ☐ Yes 🖾 No Casing Left in Place? ■ Water Well If No. Explain Tris Drillhole 15 BORING, NOT A WELL Borehole Was Casing Cut Off Below Surface? ∏ Yes 💢 No Did Sealing Material Rise to Surface? ∑ Yes □ No Construction Type: Drilled Did Materiai Settle After 24 Hours? ☐ Yes ☑ № Driven (Sandpoint) If Yes, Was Hole Retopped? Other (Specify) DRIVEN WI CONE PENETRONETER ☐ Yes ☐ No. (5) Required Method of Placing Sealing Material Formation Type: Conductor Pipe-Gravity Conductor Pipe-Pumped Unconsolidated Formation ☐ Bedrock Dump Bailer Other (Explain) Total Well Depth (ft.) 16 5 Casing Diameter (ins.) N/A Sealing Materials For monitoring wells and (From groundsurface) Neat Cement Grout monitoring well boreholes only Sand-Cement (Concrete) Grout Casing Depth (fL) Concrete Bentonite Pellets Clay-Sand Slurry Granular Bentonite Yes No Unknown Bentonite-Sand Slurry Bentonite - Cement Grout Was Well Annular Space Grouted? If Yes, To What Depth? Feet Chipped Bentonite No. Yards, (7) Sacks Sealant or Volume Mix Ratio or Mud Weight Sealing Material Used From (FL) To (Ft.) Surface 3 Portland Coment Grout (8) Comments: THIS 15 A SOIL BORING. NOT WELL Name of Person or Firm Doing Sealing Work (10) FOR DNR OR COUNTY USE ONLY Date Received/Inspected District/County Mathew A. Swanson Parsons Engineering Signatury of Derson Doing Work Date Signed 1/9/95 Reviewer/Inspector Telephone Number Street or Route 1700 Broadway, Ste. 900 (303)83(-8100 Follow-up Necessary City State, Zip Code

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

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1700 Broadway,

City State, Zip Code

Ste. 900

80226

(303)831-8100

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

Follow-up Necessary

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WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

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All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis.

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

GENERAL INFORMATION	N	(2)	FACILI	TY NAME			
Well/Drillhole/Borehole	County	+		Well Owner	(If Known)		•
Location	DANE_	1	_	BELOW			
		+		Well Owner			
SE 1/4 of NW 1/4 of Sec.	. 29 ; T. 8 N. R. 10 M				418		C A B A
(If applicable)	<u></u>	+	Street or	ONSIN	AIR NAT	TONLL	GUARD
	Grid Number	l		MITCH	ELL ST.		
Gov't Lot	Gna Number	—					
Grid Location				ate, Zip Code		27011	
	S., ft E W.		MADI	SON, (3704	WI Unique Well No.
Civil Town Name		1	COT/	<u> </u>		offerore)	WI Unique Well No.
		┵	Chi		2e <i>c</i>	l	
Street Address of Well				For Abandoni			
	ST,			MINATIO		ORING	-
City, Village		1	Date of A	Abandonmen	ı		
MADISON		<u> </u>		<u>13/94 </u>			
ELL/DRILLHOLE/BOREHO							
Original Well/Drillhole/Boreho	ie Construction Completed On	(4)	Depth to	Water (Feet	6.5		
$(Date) \qquad 9/3/94$	1		Pump &	Piping Remo	oved?	(es ∏ No	Not Applicable
		•	Liner(s)	Removed?	П,	Yes ∏ No	Not Applicable
Monitoring Well	Construction Report Available?		Screen R	temoved?	H 7	⁄ຮ ໘ №	· · ·
Water Well	☐ Yes ☒ No	1		eft in Place?		/¤ ⊠ №	
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Borehole Borehole	I .						1,- 1-
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Construction Type:				-	Rise to Surface?		s
	ven (Sandpoint) Dug			•	fter 24 Hours?		s 🖾 №
<u> </u>	WI CONE PENETRONETER						
M Other (Specify) DRIVEN	WILLIAM TOWN TOWN	·					
Formation Type:		(5)	Required	Method of P	lacing Sealing M	laterial	
Unconsolidated Formation	☐ Bedrock		Cond	luctor Pipe-Gr	ravity 🔀 C	onductor Pi	pe-Pumped
•	•	L_ '	Dump	p Bailer		Other (Expla	in)
Total Well Depth (ft.) 19.8	Casing Diameter (ins.) NA	(6)	Sealing I	Materials		For moni	toring wells and
(From groundsurface)	-		Neat	Cement Grou	ut	monitorir	ig well boreholes only
			Sand	-Cernent (Cor	ncrete) Grout		•,
Casing Depth (ft.) N/A		1	Conc	rete		☐ Bento	nite Pellets
• · · · · <u></u>	-		Clay.	-Sand Slurry		Granu	lar Bentonite
Was Well Annular Space Group	eci?	n	=	onite-Sand Sl	urry !	=	nite - Cement Grout
If Yes, To What Depth?	Feet		=	ped Bentonite	•		
n Tes, To What Deput.		4		,~			
Sealing M	laterial Used	Fre	om (FL)	To (Ft.)	No. Yards, Sacks Sealant	Mix Ra	io or Mud Weight
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Comments: This is A	SOIL BORING, NOT	A	WELL				
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Vame of Person or Firm Doing	Sealing Work	\top	(10)	FOR	DNR OR C	UNTY	SE ONLY
Mathew A. Swanson	70	,		Received/Insp			t/County
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Signature of Derson Doing Wor	1 9 4C	- 1	D	William Commander	m A September 1 Comment of the	W. SHINE COLLEGE	Marie Marie Contract
Mitteld Au	_ 119195	1	Revie	ewer/Inspector			
Street or Route	1 9 95 Telephone Number	-	* * * * * * * * * * * * * * * * * * *	and the second			
Mitteld Sum	Telephone Number		* * * * * * * * * * * * * * * * * * *	w-up Necessa			

WELL/DRILLHOLE/BOREHOLF ABANDONMENT Form 3300-5W 11-89

County	Origina	l Well Owner	(If Known)	····
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Grid Number	311	· MITCH	FILL ST.	
				
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construction Completed On	1			/ . [7] M . 57 . M . A . M . M .
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WI CONE PENETROMETER	lf Ye	s, Was Hole K	etopped?	Yes No
	(5) Require	d Method of F	lacing Sealing M	laterial
	1, ,			Conductor Pipe-Pumped
☐ Bedrock	• =	_	- -	Other (Explain)
Casing Diameter (ins.) N/A				For monitoring wells and
Casing Dianeer (als.) W/FT				monitoring well boreholes only
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SOIL BURING NOT	A WEL			
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	Grid Number ft. E. W. T. LE INFORMATION Construction Completed On 4 Construction Report Available? Yes No en (Sandpoint)	Construction Completed On Construction Report Available? Casing If No. E Casing If No. E Casing If No. E Casing Did Ma If Yes Casing Did Ma Construction Completed On Casing Did Ma Construction Completed On Casing If No. E Casing If No. E Casing If No. E Casing Did Ma Construction Completed On Casing One Construction Report Available? Casing If No. E Casing One Construction Report Available? Casing If No. E Casing One Construction Report Available? Casing If No. E Casing One Construction Report Available? Casing One Construction Report Available? Casing If No. E Casing One Construction Report Available? Casing One Construction Report Available? Casing One Construction Report Available? Casing One Construction Report Available? Casing One Construction Report Available? Casing One Construction Report Available? Casing One Construction Report Available? Casing One Construction Report Available? Casing One Construction Report Available? Casing One Construction Report Available? Casing One Construction Report Available? Casing One Construction Report Available? Casing One Construction Report	Grid Number Grid	See or Route Stree or Route Stree or Route Stree or Route Stree or Route Stree or Route Stree or Route Stree or Route Stree or Route Stree or Route Stree or Route Stree Stree or Route Stree
WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

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Ste. 900

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(303)83(-8100

1700 Broadway,

City, State, Zip Code

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Follow-up Necessary

80226

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. nin. Code, whichever is applicable. Also, see instructions on back. (2) FACILITY NAME GENERAL INFORMATION County Original Well Owner (If Known) Well/Drillhole/Borehole Location DANE BELOW Present Well Owner ⊠ E $\leq \leq 1/4$ of NW 1/4 of Sec. 29; T. N; R. _[0 WISCONSIN AIR NATIONAL GUARD Street or Route (If applicable) 3110 MITCHELL Gov't Lot Grid Number Grid Location City, State, Zip Code ft. N. S., ft. 🔲 E. 🔲 W MADISON 3704 Civil Town Name Facility Well No. and/or Name (If Applicable) WI Unique Well No. Street Address of Well Reason For Abandonment 31i0 MITCHELL TERMINATION OF City, Village Date of Abandonment 9115/94 MADISON WELL/DRILLHO!.E/BOREHOLE INFORMATION (3) Original Well/Drillhole/Borehole Construction Completed On (4) Depth to Water (Feet) ☐ Yes ☐ No 🔂 Not Applicable Pump & Piping Removed? (Date) Liner(s) Removed? Yes No No Applicable Yes No Not Applicable Screen Removed? Construction Report Available? Monitoring Well Casing Left in Place? Yes 🔯 No ⊠ No ☐ Water Well ☐ Yes If No. Explain Trils 15 ☐ Drillhole BORING Borehole Was Casing Cut Off Below Surface? ☐ Yes X No Did Sealing Material Rise to Surface? Yes No Construction Type: Drilled Did Material Settle After 24 Hours? Driven (Sandpoint) If Yes, Was Hole Retopped? PENETRONETER ☐ Yes ☐ No. Other (Specify) DRIVEN W/ CONE (5) Required Method of Placing Sealing Material Formation Type: Conductor Pipe-Gravity Conductor Pipe-Pumped Unconsolidated Formation Bedrock Dump Bailer Other (Explain) / O Casing Diameter (ins.) N/A Sealing Materials For monitoring wells and Total Well Depth (ft.) (From groundsurface) Neat Cement Grout monitoring well boreholes only Sand-Cement (Concrete) Grout Casing Depth (ft.) Concrete Bentonite Pellets Clay-Sand Slurry Granular Bentonite Yes No Unknown Bentonite-Sand Slurry Was Well Annular Space Grouted? Bentonite - Cement Grout If Yes, To What Depth? Chipped Bentonite No. Yards, Sacks Sealant or Volume Sealing Material Used Mix Ratio or Mud Weight From (FL) To (Ft.) Portland Coment Grout Surface (8) Comments: THIS A SOIL BURING NOT WELL (10) FOR DNR OR COUNTY USE ONLY Name of Person or Firm Doing Sealing Work Date Received/Inspected Matthew A. Swzuson District/County / Parsons Engineering Signature of Derson Doing Work Date Signed 9 195 Reviewer/Inspector Street or Route Telephone Number 1700 Broadway, Ste. 900 (303)83(-8100 Follow-up Necessary City State, Zip Code

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W

Il abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. vin. Code, whichever is applicable. Also, see instructions on back. (2) FACILITY NAME GENERAL INFORMATION Original Well Owner (If Known) County Well/Drillhole/Borehole DANE AS BELOW Present Well Owner ØΕ SE 1/4 of NW 1/4 of Sec. 29 : T. WISCONSIN AIR NATIONAL GUARD Street or Route (If applicable) 3110 MITCHELL **Grid Number** Gov't Lot City, State, Zip Code Grid Location ft. 🔲 E. 🔲 W. MADISON 53704 ft. N. S., Facility Well No. and/or Name (If Applicable) Civil Town Name WI Unique Well No. CPT12 - Fine Street Address of Well Reason For Abandonment 3110 MITCHELL ST. TERMINATION BORING City, Village Date of Abandonment 13/44 MADISON ELL/DRILLHOLE/BOREHOLE INFORMATION Depth to Water (Feet) Original Well/Drillhole/Borehole Construction Completed On Pump & Piping Removed? Yes No No Not Applicable (Date) Liner(s) Removed? Yes No Not Applicable Screen Removed? Construction Report Available? No Not Applicable Monitoring Well Yes Casing Left in Place? ☐ Y∝ ⊠ No ■ Water Well ☐ Yes 🔯 No If No. Explain Trils is Drillhole BORING. NOT A WELL M Borehole Was Casing Cut Off Below Surface? Yes X No Did Sealing Material Rise to Surface? X Yes No Construction Type: Dug Yes 🛛 No Did Material Settle After 24 Hours? Drilled Driven (Sandpoint) If Yes, Was Hole Retopped? Yes 🗌 No Other (Specify) DRIVEN W/ CONE PENETRONETER (5) Required Method of Placing Sealing Material Formation Type: Conductor Pipe-Gravity Conductor Pipe-Pumped ☐ Bedrock Unconsolidated Formation Other (Explain) Dump Bailer Total Well Depth (ft.) 16.7 Casing Diameter (ins.) N/A (6) Sealing Materials For monitoring wells and (From groundsurface) Neat Cement Grout monitoring well boreholes only Sand-Cement (Concrete) Grout ☐ Concrete Bentonite Pellets Casing Depth (ft.) Clay-Sand Slurry Granular Bentonite Was Well Annular Space Grouted? Yes No Unknown Bentonite-Sand Slurry Bentonite - Cement Grout If Yes, To What Depth? Feei Chipped Bentonite No. Yards, Sealing Material Used Sacks Sealant or Volume Mix Ratio or Mud Weight From (FL) To (Ft) Surface ertland Coment Growt 16.7 Comments: BORING WELL THIS NOT SOIL (10) FOR DNR OR COUNTY USE ONLY Name of Person or Firm Doing Sealing Work Swanson / Date Received/Inspected District/County Parsons Engineering Science, he Signature of Depson Doing Work Date Signed 119195 Reviewer/Inspector Telephone Number Ste. 900 1700 Broadway,

Follow-up Necessary

(303)83(-8100

City, State, Zip Code

80226

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. nin. Code, whichever is applicable. Also, see instructions on back.

GENERAL INFORMATION			ITNAME			
Well/Drillhole/Borehole Location	County	_	I Well Owner BELOW	(If Known)		
	Ø E		Well Owner			
SE 1/4 of NW 1/4 of Sec. 7	29 : T. 8 N. R. 10 H	Wisc	CNSIN	AIR NAT	IONAL G	CUARD
(If applicable)		Street o		1:11.1.		····
Gov't Lot	Grid Number	3110	MITCH	ELL ST.		
Grid Location		City, St	ate, Zip Code			
ft. N. S.	, ft. DE. W.	MADI	SON, I		3704	
Civil Town Name		Facility	Well No. and,	or Name (II App	olicable) WI (Inique Well No.
		L CPT	13 - F	iber		<u> </u>
Street Address of Well		Reason	For Abandoni			
3110 MITCHELL ST	<u>r</u>	TER	MINATIO	N OF B	ORING	
City, Village			Abandonment	t .		
MADISON		9/	13/94	······································		.
ELL/DRILLHOLE/BOREHOL		·	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Original Well/Drillhole/Borehole	Construction Completed On	1	Water (Feet			
(Date) 9/13/4		,	Piping Remo	oved?		Not Applicable
		1 '	Removed?	L_J	(e 🗆 1/0 🔀	
Monitoring Well	Construction Report Available?	i .	lemovad? Left in Place?		(s [] % [S]	Not Applicable
Water Well	☐ Yes ⊠ No	If No. E			(c 🔯 No _	- A
Drillhole		11 140, E	Apiauli 170	1s is A B	CKING, NO	T A WELL
⊠ Borehole	!	Was Cas	sing Cut Off I	Below Surface?	☐ Yes 🛛	1 No.
Construction Type:			-	Rise to Surface?		
4	n (Sandpoint) Dug	1	U	fter 24 Hours?	∏ Y∞ X	•
	N/ CONE PENETROMETER	If Yes	Was Hole R	etopped?	☐ Yes ☐	
DRIVE N	Terre Terre	į		lacing Sealing M		·
Formation Type:	İ	I				
Unconsolidated Formation	☐ Bectrock	. =	fuctor Pipe-G		onductor Pipe-P	umped
m A5	Casing Diameter (ins.) N/A	(6) Sealing	<u> </u>		Othe, (Explain) For monitorin	a walla md
Total Well Depth (ft.) <u>H.5</u> (From groundsurface)	Casing Diameter (ins.)		Cement Grou	18		ell boreholes only
(From groundsurface)		. =	l-Cement (Cor		montains w	an objections only
Casing Depth (ft.) NA	į	Conc		1	☐ Bentonite	Pellets
casing Departite) 1971		1 =	-Sand Slurry	i i	Granular B	
Was Well Annular Space Grouted	? Yes No Unknown		onite-Sand SI	urry !		- Cement Grout
If Yes, To What Depth?	Feet		ped Bentonite			
			<u>.</u> 	No. Yards.	r ==	
Sealing Mat	erial Used	From (Ft.)	To (Ft.)	Sacks Sealant or Volume	Mix Ratio or	r Mud Weight
				Of Volume		
orthand Coment Grou	5 +	Surface	19.5		}	
			· · · ·			
	· ·					
			L			
Comments: THIS IS A	SOIL BORING, NOT 1	A WELL	=			
Name of Person or Firm Doing Se	-ties Work	1/10)	* FOR	NAME OF CO	MATTY HICE	ONLY
		1	Received/Insp			unty
Signature of Derson Doing Work	Parsons Engineering Science, her.				and the contract and annual	•••••
MI ALL STATE OF THE WORK	119 (95	Revi	ewer/Inspector			
Street or Route	Telephone Number		Mary W.			#
1700 Broadway, Ste. 90	0 (303)831-8100	Folio	w-up Necessa	ıry		
City State Zin Code		1		-		
TIPHUP CO BUZZ	∠6	, <u> </u>				

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. In in. Code, whichever is applicable. Also, see instructions on back.

<u>Ų,</u>	GENERAL INFORMATION		LILTY NAME	•				
	Well/Drillhole/Borehole County	Ong	Original Well Owner (If Known)					
	Location DANE	AS BELOW						
	(Prese	nt Well Owner					
	SE 1/4 of NW 1/4 of Sec. 29 ; T. 8 N. R. 10		SCC-151N	AIR NAT	IONAL GUARD			
	(If applicable)		t or Route					
	Gov't Lot Grid Number		10 MITCH					
	Grid Location		, State, Zip Code		2 - 41			
_	ft.	MA	DISON, U	U1 5	3704			
	Civil Town Name		ity Well No. and/		olicable) WI Unique Well No.			
_	C. All MIN		714 - Fil					
	Street Address of Well 3110 MITCHELL ST	[on For Abandonr					
	3110 MITCHELL ST.	TERMINATION OF BORING Date of Abandonment						
		Date	9/13/94					
14/	MADISON ELL/DRILLHOLE/BOREHOLE INFORMATION		1113/19					
	Original Well/Drillhole/Borehole Construction Completed On	I(4) Dent	h to Water (Feet)	8.5				
(5)	$\alpha I_{i-1} I_{i-1}$	1, ,			es No No Not Applicable			
	(Date) 9/13/94		p & Piping Remo (s) Removed?					
	Monitoring Well Construction Report Available?	3	n Removed?	نسا	(es No Not Applicable Not Applicable No Not Applicable			
	Monitoring Well Construction Report Available? Water Well Yes ⊠ No	1	ng Left in Place?	Li	es No No Not Applicable			
	Drillhole	1	Explain 7711					
	M Borehoie	""	. Express:		CRING, NOT A WELL			
	(X) potenoie	Was	Casing Cut Off B	Below Surface?	∏ Yes X No			
	Construction Type:		Sealing Material I		X Yes No			
	● Dnilled □ Driven (Sandpoint) □ Du _b	1	Material Settle Af		∏ Yes ⊠ No			
	Other (Specify) DRIVEN W/ CONE PENETROMETER	If '	res, Was Hole Re	topped?	∏ Y≈ miNo			
	January John Marie Land Communication of the Commun		red Method of Pl	laging Saeling M				
	Formation Type:	I		· · · · · · · · · · · · · · · · · ·				
	☐ Unconsolidated Formation ☐ Bedrock	Conductor Pipe-Gravity Conductor Pipe-Pumped Dump Bailer Other (Explain)						
	7 . W. W. D 15 7 . Carlos Diagnos / 100 M/A		ump Bauler ng Materials		Other (Explain)			
	Total Well Depth (ft.) 15.1 Casing Diameter (ins.) NA (From groundsurface)		ng Materials eat Cement Grou		For monitoring wells and			
	(From groundsurace)		and-Cament (Con		monitoring well boreholes only			
	Casing Depth (ft.) N/A		oncrete	1	Bentonite Pellets			
	Casing Deput (te.)	=	lay-Sand Slurry	!	Granular Bentonite			
	Was Well Annular Space Grouteg? Yes No Unknow	1	entoniæ-Sand Sli	im.	Bentonite - Cement Grout			
	If Yes, To What Depth?		hipped Bentonite					
=		1 63	T T	No. Yards.				
(7)	Sealing Material Used	From (F	L) To (FL)	Sacks Sealant	Mix Ratio or Mud Weight			
				or Volume				
P	orthand Coment Grout	Surface	15.2					
	CONTRACT CIOCI	 	-1/3					
_		 						
		 						
(8)	Comments: THIS IS A SOIL BORING, NOT	A WE	L-1					
	Name of Person or Firm Doing Sealing Work	(1	0) FOR	DNR OR CO	DUNTY USE ONLY			
	Matthew A. Swarson Parsons Engineering Science, 1	4 D	ate Received/Insp	ected ////	District/County			
	Signature of Person Doing Work Date Signed	1 1	ate Received/Insp					
	Matte 1. Su 1/9/95	R	eviewer/Inspector					
	Street or Route Telephone Number	了 「 "	27 3 500 45 5 6 76 300 46 45 5 5 6 7	na maka mendikan mend	Maria Caraca Car			
	1700 Broadway, Ste. 900 (303)831-8100		ollow-up Necessa	ry				
	City State, Zip Code	7 L						
	TIDAMER CO 10226							

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis.

in. Code, whichever is applicable. Also, see Instructions on back.

C., GENERAL INFORMATION			(2) FACILITY NAME						
Well/Drillhole/Borehole	County	Origina	Well Owner	(If Known)					
Location	DANE		BELOW						
< A 13.1			Well Owner						
SE 1/4 of NW 1/4 of S∞c. 2	9: T. 8 N. R. 10 W		CNSIN	AIR NAT	IONAL GUARD				
(If applicable)		Street o							
Gov't Lot	Grid Number		MITCH						
Grid Location	fL □ E. □ W.		late, Zip Cod		3704				
ft. N. S.,	ft.	14/ KD	ISON , I		olicable) WI Unique Well No.				
CIVIL TOWN INAME			_		WI Onique Well 140.				
Street Address of Well				iber_					
3110 MITCHELL ST		Reason For Abandonment							
City, Village	·	TERMINATION OF BORING Date of Abandonment							
MADISON		9	14 94						
WELL/DRILLHOLE/BOREHOLE	INFORMATION		+ + +						
(3) Original Well/Drillhole/Borehole C	onstruction Completed On	(4) Depth to	Water (Feet	5.5					
(Date) 9/14/94		Pump &	Piping Rem	oved? Y	es 🔲 No 🔀 Not Applicable				
——————————————————————————————————————			Removed?		les No Not Applicable				
Monitoring Well	Construction Report Available?	Screen F	Removed?	겁	es No Not Applicable				
☐ Water Well	☐ Yes 🖾 No		Left in Place?	1 1	(α 🔯 No 📜				
☐ Drillhole		If No. E	xplain TH	15 IS A B	CRING, NOT A WELL				
Borehole					<u> </u>				
			-	Below Surface?	Yes X No				
Construction Type:		ľ	-	Rise to Surface?	Yes 1 No				
	(Sandpoint) Dug	Did Material Settle After 24 Hours? Yes No If Yes, Was Hole Retopped? Yes No (5) Required Method of Placing Sealing Material							
Other (Specify) DRIVEN W	LONE PENETROMETER								
Engarian Tomos									
Formation Type: Unconsolidated Formation	☐ Bedrock	Conductor Pipe-Gravity Conductor Pipe-Pumped							
*		Dump Bailer Other (Explain)							
Total Well Depth (ft.) 23.0	Casing Diameter (ins.) N/A	(6) Sealing			For monitoring wells and				
(From groundsurface)	,		Cement Gro		monitoring well boreholes only				
			-	ncrete) Grout					
Casing Depth (ft.) NA		Conc			Bentonite Pellets				
W- W 11 A - 1 - 6 6 22	П V., ПМ- П И-1	. = :	-Sand Slurry	ı I	Granular Bentonite				
Was Well Annular Space Grouted?	Yes No Unknown	==	onite-Sand Sl		Bentonite - Cement Grout				
If Yes, To What Depth?	ræi	спр	ped Bentoniu						
(7) Sealing Mater	rial Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant	Mix Ratio or Mud Weight				
				or Volume					
Partland Comment Come	+	Surface	23.0	<u> </u>					
Portland Coment Grow	1		<i>,</i> , , ∪						
			İ	•					
			ļ						
									
		Ĺ							
(8) Comments: This is A	SOIL BORING, NOT 1	4 WELL	_						
Vame of Person or Firm Doing Sea					DUNTY USE ONLY				
Matthew A. Swencon/	Parsons Engluearing Science, luc	Date	Received/Inst	ected	District/County				
Signature of Derson Doing Work	Date Signed								
Street or Route	1 9 95	2000000	ewer/Inspecto	C					
100 Broadway, Ste. 900	Telephone Number (303) 83(-8(00	l	e en articipa						
		rolio	w∙up Necess	uy .					
City, State, Zip Code	6		· · · · · · · · · · · · · · · · · · ·	- Charles	essent and the second s				

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

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imin. Code, whichever is applicable. Also, see instructions on back.

GENERAL INFORMATION			(2) FACILITY NAME						
Well/Drillhole/Borehole	County	Original Well Owner (If Known)							
Location	DANE	AS BELOW							
	9; T. 8 N. R. 10 1 W								
SE 1/4 of NW 1/4 of Sec. 2	WISCONSIN AIR NATIONAL GUARD								
(If applicable)	Street or Route 3110 MITCHELL ST.								
Gov't Lot									
Grid Location	City, State, Zip Code								
ft.	ft.	MADISON, WI 53704							
Civil Town Name	Facility Well No. and/or Name (If Applicable) WI Unique Well No.								
			16 - F						
Street Address of Well		Reason For Abandonment							
3110 MITCHELL ST	·	TERMINATION OF BORING							
City, Village			Abandonmen	t					
MADISON		9/1	4 [44]						
WELL/DRILLHOLE/BOREHOLE		Lo S	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
(3) Original Well/Drillhole/Borehole C	onstruction Completed On		Water (Feet		. <u> </u>				
(Date) 9/14/94		the series by	Piping Rem	oved? 🔲 Y	es No No Not Applicable				
_			inoved?	Y	es No No Not Applicable				
Monitoring Well	Construction Report Available?		temoved?		es No Not Applicable				
☐ Water Well	Yes 🔼 No		Left in Place?		Yes No				
Drillhole	İ	If No. E	xplain Trl	15 15 A B	CRING, NOT A WELL				
🔯 Borehole	•								
			•	Below Surface?	Yes X No				
Construction Type:		Did Sealing Material Rise to Surface? Yes No Did Material Settle After 24 Hours? Yes No							
	(Sandpoint) Dug								
Other (Specify) DRIVEN W	LONE PENETRONETER	If Yes, Was Hole Retopped? Yes No							
	·	(5) Required	Method of P	lacing Sealing M	aterial				
Formation Type:			Conductor Pipe-Gravity Conductor Pipe-Pumped						
Unconsolidated Formation	∐ Bedrock	□ Dump Bailer □ Other (Explain) (6) Sealing Materials For monitoring wells and monitoring well boreholes only							
Total Well Depth (ft.) 16.4	Casing Diameter (ins.) N/A								
(From groundsurface)									
,		1 =		ncrete) Grout	2				
Casing Depth (ft.) NA		Conc		ı	☐ Bentonite Pellets				
TOTAL	}	Clay	-Sand Slurry	ı t	Granular Bentonite				
Was Well Annular Space Grouted?	☐ Yes ☐ No ☐ Unknown	· - ·	onite-Sand SI	urry .	Bentonite - Cement Grout				
If Yes, To What Depth?	Feet	. =	ped Bentonite						
		 	,	No. Yards,					
(7) Sealing Mater	rial Used	From (FL)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight				
		ļ`	<u> </u>	or Volume					
Postland Charles Con	- [Surface	11 A						
Portland Coment Grow			16.4						
				i					
					· · · · · · · · · · · · · · · · · · ·				
		 							
	•								
(8) Comments: This is A	SOIL BORING, NOT 1	<u> </u>	<u> </u>	<u>!</u> !					
(8) Comments: THIS IS A	SOIL BORING, NOT 1	A WELL	=						
Name of Person or Firm Doing Sea	Nine Work	(10)		DNP	UNTY USE ONLY				
	Parsons Engineering Science, he		Received/Inst		District/County				
Signature of Derson Doing Work	Date Signed	1 7	vocientigi		District/County				
All All S	1 9 95	Dan	ewer/inspecto	e i i i i i i i i i i i i i i i i i i i					
Street or Route	Telephone Number	1 1	ewer/insbeco						
1700 Broadway, Ste. 900	0 (303)83(-8100	Eall.	a december de places à	······································	Anna San Carlotte and Carlotte and Carlotte and Carlotte and Carlotte and Carlotte and Carlotte and Carlotte a				
		rollo	w∙up Necess	шу					
City, State, Zip Code	£	۱ ـــ ـــ	a year was well	- (1911) 1824 \$1 - (1) 1824 \$	6 st in paragraph and in with 1000 s.				

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Inin. Code, whichever is applicable. Also, see instructions on back.

GENERAL INFORMATION	(2) FACILITY NAME				
Well/Drillhole/Borehole	County	1	l Well Owner	(If Known)	
Location	DANE	ئ جھے ا	BELOW Well Owner		
SE 1/4 of NW 1/4 of Sec. 2	19; T. 8 N.R. 10 W	1		A 10 110-	· A · · · · · · · · · · · · · · · · · ·
(If applicable)	7:1.0 147 14 11"	Street of	r Route	HIK NHT	IONAL GUARD
Gov't Lot	Grid Number		MITCH	IELL ST.	
Grid Location		City, St	tate, Zip Cod	e	
ft.	ft. E. W.	MAD	ISON, 1		3704
Civil Town Name		Facility A OT	Well No. and		plicable) WI Unique Well No.
Street Address of Well		Peason	For Abandon	ber	
3110 MITCHELL ST	•	1	MINATIO		ORING
City, Village	<u></u>	Date of	Abandonmen	il	OKING
MADISON		1 1	14194		
WELL/DRILLHOLE/BOREHOLE					
(3) Original Well/Drillhole/Borehole C	Construction Completed On	1''	o Water (Feet		The Table 10 and
(Date) <u>4/14/94</u>	· ·		k Piping Remark Removed?		Yes No No Not Applicable
/ · ·	Construction Report Available?	1 '	Removed?		Yes No No Not Applicable Yes No Not Applicable
Monitoring Well Water Well	Yes No		Left in Place?		Yes No No
Drillhole			xplain Tri		CRING, NOT A WELL
☑ Borehole	1				
•	I	1	-	Below Surface?	☐ Yes X No
Construction Type:	(Sandroint) Dug	1	•	Rise to Surface? fter 24 Hours?	
	I (Sandpoint) U DUB N/ CONE PENETRONETER	1	terial Settle A 5. Was Hole R		☐ Yes [X] No ☐ Yes ☐ No
M Ower (Sherma) DRIVE N	CONE TONE HOUSE	<u> </u>		••	
Formation Type:	!	l		Placing Sealing M	
☐ Unconsolidated Formation	☐ Bedrock	Dum	ductor Pipe-G 10 Bailer	· · · · · · · · · · · · · · · · · · ·	Conductor Pipe-Pumped Other (Explain)
Total Well Depth (ft.) 22.9	Casing Diameter (ins.) N/A	(6) Sealing	•		For monitoring wells and
(From groundsurface)	7		t Cement Gro	บเ	monitoring well boreholes only
	,	1 =	-	ncrete) Grout	
Casing Depth (ft.)	1	Conc		! !	Bentonite Pellets
Was Wall Annular Space Grouter?	? No Unknown)	/-Sand Slurry tonite-Sand Sl	·	Granular Bentonite Bentonite - Cement Grout
Was Well Annular Space Grouted? If Yes, To What Depth?	res No Unknown	ı ==	tonite-Sand Si oped Bentonite	•	Benionite - Centent From
		<u> </u>	7	No. Yards.	T
(7) Sealing Mater	rial Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
			 	or Volume	
Portland Coment Grow	rt <u> </u>	Surface	22.9		
	· · · · · · · · · · · · · · · · · · ·	ļ			
	•	1			
		 	 		
	· — — — — — — — — — — — — — — — — — — —	l	[
(8) Comments: THIS IS A	SOIL BORING, NOT 1	A WELL			
					<u> </u>
Name of Person or Firm Doing Sea	//\ -				OUNTY USE ONLY
Matthew A. Swanson /	Parsons Francering Science, her	J Jan	Received/Insp	pected	District/County
Signature of Derson Doing Work	1 9 95	Revi	ewer/Inspecto	1 S 2 S 2 S 2 S 2 S 2 S 2 S 2 S 2 S 2 S	and the second contract of the second contrac
Street or Route	Telephone Number			•	
1700 Broadway, Ste. 90	6 (303)831-8100	Folic	w up Necess	ату	
City State, Zip Code	- G				

TIPITE AL. HARDKIMA ILOM		(2) FACILI	TYNAME		
GENERAL INFORMATION Well/Drillhole/Borehole	County		Well Owner	(If Known)	
Location	DANE	As e	BELOW	(= : : ,	
	X E	Present	Well Owner		
SE 1/4 of NW 1/4 of Sec. 2	9: T. 8 N.R. 10 1	ı		AIR NAT	IONAL GUARD
(If applicable)	<u> </u>	Street or	Route	HILL PAIL	TONIT OUTT
Gov't Lot	Grid Number	1	MITCH	ELL ST.	
Grid Location			ate, Zip Code		
ft. \(\scale \) N. \(\scale \) S.,	ft. 🗍 E. 🔲 W.	MADI			3709
Civil Town Name		Facility	Well No. and	or Name (II App	
			17-50		
Street Address of Well			For Abandoni		
3110 MITCHELL ST	•		MINATIO	_	ORING
City, Village	·		Abandonmeni		OKING-
MADISON		01	4/94		
ELL/DRILLHOLE/BOREHOLE	E INFORMATION				
Original Well/Drillhole/Borehole C		(4) Depth to	Water (Feet	3.4	
(Date) 9/14/GZ	_	r, .	Piping Remo		'es 🔲 No 🔀 Not Applicab
(Date)			Removed?		les [] No [Not Applicab
Monitoring Well	Construction Report Available?	1	emoved?		es No Not Applicab
Water Well	Yes No		est in Place?		S No
Drillhole	IC E3 140		oplain Trl		CRING, NOT A WE
Borehole	i		·F		UNITAL TOUR
A Dorenoic		Was Cas	ing Cut Off I	Below Surface?	Yes X No
Construction Type:			•	Rise to Surface?	X Yes No
	(Sandpoint) Dug	1	•	fter 24 Hours?	Yes No
	1 CONE PENETRONETER	ž.	Was Hole R		Yes No
74 Odio (0811-1)	1 10.00	Dequired	Marhad of P	lacing Sealing M	
Formation Type:					
Unconsolidated Formation	☐ Bedrock	1 ==	luctor Pipe-G		onductor Pipe-Pumped
•		(6) Sealing			Other (Explain)
Total Well Depth (ft.) 5.5	Casing Diameter (ins.) N/FT	(6) Sealing I		<u>.</u> .	For monitoring wells and
(From groundsurface)		1	Cement Gro		monitoring well boreholes or
2: 2 4(2) 1/0		Conc	-	ncrete) Grout	C noncole Dellate
Casing Depth (ft.) N/A		1 =	rete -Sand Slurry	:	Bentonite Pellets Granular Bentonite
	? Yes No Unknown	_ = '	-	 	Bentonite - Cement Grou
		Bent	onite-Sand Sl ped Bentonite		Deuroune - Centeur 210a
Was Well Annular Space Grouted?			реа Белшии	:	
If Yes, To What Depth?	Feet Feet				
If Yes, To What Depth?	Feet	Chip		No. Yards, Sacks Sealant	Mix Ratio or Mud Weight
	Feet		To (FL)		Mix Ratio or Mud Weight
If Yes, To What Depth? Sealing Mate	Feet Feet	Chip	To (FL)	No. Yards, Sacks Sealant	Mix Ratio or Mud Weight
If Yes, To What Depth? Sealing Mate	Feet Feet	From (FL)		No. Yards, Sacks Sealant	Mix Ratio or Mud Weight
If Yes, To What Depth? Sealing Mate	Feet Feet	From (FL)	To (FL)	No. Yards, Sacks Sealant	Mix Ratio or Mud Weight
If Yes, To What Depth? Sealing Mate	Feet Feet	From (FL)	To (FL)	No. Yards, Sacks Sealant	Mix Ratio or Mud Weight
If Yes, To What Depth? Sealing Mate	Feet Feet	From (FL)	To (FL)	No. Yards, Sacks Sealant	Mix Ratio or Mud Weight
If Yes, To What Depth? Sealing Mate	Feet Feet	From (FL)	To (FL)	No. Yards, Sacks Sealant	Mix Ratio or Mud Weight
If Yes, To What Depth? Sealing Mate	Feet Feet	From (FL)	To (FL)	No. Yards, Sacks Sealant	Mix Ratio or Mud Weight
If Yes, To What Depth?	Feet	From (FL) Surface	To (FL)	No. Yards, Sacks Sealant	Mix Ratio or Mud Weight
If Yes, To What Depth?	Feet	From (FL)	To (FL)	No. Yards, Sacks Sealant	Mix Ratio or Mud Weight
If Yes, To What Depth? Sealing Mate or Hand Coment Grow Comments: This is A	Feet Trial Used SOIL BORING, NOT	From (FL) Surface A WELL	To (FL)	No. Yards, Sacks Sealant or Volume	
If Yes, To What Depth? Sealing Mate or Hand Coment Grow Comments: This is A Tame of Person or Firm Doing Se	Feet Trial Used SOIL BORING, NOT Saling Work	From (FL) Surface A WELL (10)	To (FL) 5.5	No. Yards, Sacks Sealant or Volume	DUNTY USE ONLY
If Yes, To What Depth? Sealing Mate of Hand Coment Grou Comments: THIS IS A Tame of Person or Firm Doing See Mathew A. Swanson /	SOIL BORING, NOT I	From (FL) Surface A WELL (10)	To (FL)	No. Yards, Sacks Sealant or Volume	
If Yes, To What Depth? Sealing Mate or Hand Coment Grow Comments: This is A Tame of Person or Firm Doing Se	SOIL BORING, NOT adding Work Parsons Engineering Science, lar [Date Signed]	From (FL) Surface A WELL (10) Date	To (FL) 5.5 FOR Roceived/Ins	No. Yards, Sacks Sealant or Volume DNR OR Co	
If Yes, To What Depth? Sealing Mate OF Hour Coment Grou Comments: THIS IS A Tame of Person or Firm Doing See Mathew A. Swancon Signatury of Person Doing Work	SOIL BORING, NOT Adding Work Parsons Engineering Science, lar [Date Signed] [1995]	From (FL) Surface A WELL (10) Date	To (FL) 5.5	No. Yards, Sacks Sealant or Volume DNR OR Co	DUNTY USE ONLY
If Yes, To What Depth? Sealing Mate of Hand Coment Grou Comments: THIS IS A Tame of Person or Firm Doing See Mathew A. Swanson /	SOIL BORING, NOT aling Work Parsons Engineering Science, lar Date Signed 1995 Telephone Number	From (FL) Surface A WELL (10) Date Revie	To (FL) 5.5 FOR Roceived/Ins	No. Yards, Sacks Sealant or Volume DNR OR CO	DUNTY USE ONLY

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis.

nin. Code, whichever is applicable. Also, see instructions on back.

GENERAL INFORMATION			ACILITY NAME
Well/Drillhole/Borehole	County		iginal Well Owner (If Known)
Location	DANE	L_A	IS BELOW
S			esent Well Owner
> 1/4 of NW 1/4 of Sec. 2	19: T 8 N.R 10 M		LISCONSIN AIR NATIONAL GUARD
(If applicable)	Grid Number		reet or Route
Grid Location	Grid Number	<u>ن</u> ي - ا	SIIO MITCHELL ST. ry, State, Zip Code
ft. \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	ft. □ E. □ W.		
Civil Town Name		Fac	Cility Well No. and/or Name (If Applicable) WI Unique Well No.
31.2 13			OTIB - Fiber
Street Address of Well		Rea	ason For Abandonment
3110 MITCHELL ST	•		TERMINATION OF BORING
City, Village	-	Dat	ue of Abandonment
MADISON			9114194
WELL/DRILLHOLE/BOREHOLI			
(3) Original Well/Drillhole/Borehole (Construction Completed On		epih 10 Water (Feet) 4.0
(Date) 9/14/94			mp & Piping Removed?' Yes No S Not Applicable
	•	1	ner(s) Removed? Yes No No Applicable
Monitoring Well	Construction Report Available?		reen Removed? Yes No Not Applicable
Water Well	Yes 🖾 No		sing Left in Place? Yes X No
Drillhole		111	No. Explain THIS IS A BORING, NOT A WELL
₩ Borehole		W ₂	as Casing Cut Off Below Surface? Yes 🛛 No
Constant T			as Casing Cut Off Below Surface? Yes No d Sealing Material Rise to Surface? Yes No
Construction Type:	(Sandraint) Dug		d Material Settle After 24 Hours? Yes No
	n (Sandpoint) LI Dug N/ CONE PENETROMETER	1	If Yes, Was Hole Retopped? Yes \(\backslash\) No
A Cale (Spaciny, BRIVE N 4	TONE TENETICEMENT	<u> </u>	··
Formation Type:		l''''	quired Method of Placing Sealing Material
Unconsolidated Formation	☐ Bedrock		Conductor Pipe-Gravity Conductor Pipe-Pumped
	C : B: (:> 11/0		Dump Bailer Other (Explain)
	Casing Diameter (ins.) NA		aling Materials For monitoring wells and Neat Cement Grout monitoring well bereholes only
(From groundsurface)		_	Neat Cement Grout monitoring well boreholes only Sand-Cement (Concrete) Grout
Casing Depth (ft.) NA		_	Concrete ! Bentonite Pellets
Cashing Departies) N/Fi		_ =	
Was Well Annular Space Grouized	? Tyes No T Unknown		Bentonite-Sand Slurry Bentonite - Cement Grout
If Yes, To What Depth?	Feet	_	Chipped Bentonite
(7)		} 	No. Yards,
(7) Sealing Mate	erial Used	From ((FL) To (FL) Sacks Sealant Mix Ratio or Mud Weight
		 	or Volume
Portland Coment Grow	2+	Surfa	15.1
The state of the s		 	
		Ī	
		<u>L</u>	
		<u> </u>	
(8) Comments: THIS IS A	SOIL BORING, NOT	A WE	FLL
			10
Name of Person or Firm Doing Se			(10) FOR DNR OR COUNTY USE ONLY
Mother A. Swarcon	Parsons Engineering Science, la	4 1	Date Received/Inspected District/County
Signature of Derson Doing Work	Date Signed		
Street or Route		∤ i	Reviewer/Inspector
1700 Broadway, Ste. 90	Telephone Number (303)831-8100		
		∤ I	Follow-up Necessary
City State, Zip Code	<u>.</u> 6	į L	

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. vin. Code, whichever is applicable. Also, see instructions on back. T., GENERAL INFORMATION (2) FACILITY NAME Original Well Owner (If Known) Well/Drillhole/Borehole County Location DANE AS BELOW Present Well Owner ⊠ E 8 N. R. 10 SE 1/4 of NW 1/4 of Sec. 29 ; T. WISCONSIN AIR NATIONAL GUARD (If applicable) Street or Route 3110 MITCHELL Gov't Lot Grid Number Grid Location City, State, Zip Code 53704 MADISON ft. | E. | W. WI Unique Well No. Civil Town Name Facility Well No. and/or Name (II Applicable) CPT19 - Fiber Street Address of Well Reason For Abandonment 31i0 MITCHELL TERMINATION OF BORING City, Village Date of Abandonment 15/94 MADISON WELL/DRILLHOLE/BOREHOLE INFORMATION (4) Depth to Water (Feet) 8.5 (3) Original Well/Drillhole/Borehole Construction Completed On Pump & Piping Removed? Yes No No Applicable (Date) Liner(s) Removed? Yes No Not Applicable No Not Applicable Construction Report Available? Screen Removed? Yα ☐ Monitoring Well Casing Left in Place? Yes 🔯 No ☐ Yes 🗵 No Water Well If No. Explain Trils 15 ☐ Drillhole BORING. NOT A WELL Borehole Yes X No Was Casing Cut Off Below Surface? Yes | No Construction Type: Did Sealing Material Rise to Surface? ☐ Dug Yes
 No ¶ Drilled Driven (Sandpoint) Did Material Settle After 24 Hours? If Yes, Was Hole Retopped? Other (Specify) DRIVEN W/ CONE PENETRONETER Yes No (5) Required Method of Placing Sealing Material Formation Type: Conductor Pipe-Gravity Conductor Pipe-Pumped Unconsolidated Formation ☐ Bedrock Dump Bailer Other (Explain) Total Well Depth (ft.) 15.0 Casing Diameter (ins.) N/A (6) Sealing Materials For monitoring wells and (From groundsurface) Neat Cement Grout monitoring well boreholes only Sand-Cement (Concrete) Grout Casing Depth (ft.) Concrete Bentonite Pellets Granular Bentonite Clay-Sand Slurry Was Well Annular Space Grouted? Yes No Unknown Bentonite-Sand Slurry Bentonite - Cement Grout If Yes, To What Depth? Chipped Bentonite No. Yards, Sacks Sealant or Volume Sealing Material Used Mix Ratio or Mud Weight From (FL) To (FL) Surface Portland Coment Grout 15.0 (8) Comments: BORING. WELL THIS IS NOT Name of Person or Firm Doing Sealing Work (10) FOR DNR OR COUNTY USE ONLY Date Received/Inspected District/County Matthew A. Swanson / Karsons Engineering Science, la ignature of Depson Doing Work Date Signed 119 195 Reviewer/Inspector 1. N Telephone Number Street or Route Ste. 900 , You Broadway, (303)831-8100 Follow-up Necessary City State, Zip Code 80226

City State, Zip Code

. (0

80226

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. nin. Code, whichever is applicable. Also, see instructions on back. GENERAL INFORMATION (2) FACILITY NAME County Original Well Owner (If Known) Well/Drillhole/Borehole Location DANE AS BELOW Present Well Owner ΣE 8 N. R. 10 SE 1/4 of NW 1/4 of Sec. 29 WISCONSIN AIR NATIONAL GUARD (If applicable) Street or Route 3110 MITCHELL Grid Number ST. Gov't Lot City, State, Zip Code Grid Location 53704 □ N. □ S., ft. E. W. MADISON Facility Well No. and/or Name (Il Applicable) | WI Unique Well No. Civil Town Name CPT20- Fiber Street Address of Well Reason For Abandonment 3110 TERMINATION OF MITCHELL BORING City, Village Date of Abandonment MADISON WELL/DRILLHOLE/BOREHOLE INFORMATION Original Well/Drillhole/Borehole Construction Completed On (4) Depth to Water (Feet) Pump & Piping Removed? Yes No No Not Applicable Liner(s) Removed? Yes No Not Applicable Screen Removed? Yes No Not Applicable
Yes No ☐ Monitoring Well Construction Report Available? ☐ Yes 🛛 No Casing Left in Place? ☐ Water Well Drillhole If No. Explain Tris is A BORING. NOT A WELL Borehole Was Casing Cut Off Below Surface? Yes X No Did Sealing Material Rise to Surface? **∑** Yes □ № Construction Type: ☐ Dug Did Material Settle After 24 Hours? Yes 🛛 No Drilled Driven (Sandpoint) If Yes, Was Hole Retopped? M Other (Specify) DRIVEN W/ CONE PENETRONETER Yes ☐ No (5) Required Method of Placing Sealing Material Formation Type: Conductor Pipe-Gravity Conductor Pipe-Pumped ☐ Bedrock X Unconsolidated Formation Dump Bailer Other (Explain) Total Well Depth (ft.) 15. Casing Diameter (ins.) NA (6) Sealing Materials For monitoring wells and Neat Cement Grout (From groundsurface) monitoring well boreholes only Sand-Cement (Concrete) Grout Concrete Casing Depth (ft.) Bentonite Pellets Clay-Sand Slurry Granular Bentonite Was Well Annular Space Grouted? Yes No Unknown Bentonite-Sand Slurry Bentonite - Cement Grout If Yes, To What Depth? ☐ Chipped Bentonite No. Yards, Sacks Sealant or Volume Sealing Material Used Mix Ratio or Mud Weight From (Ft.) To (Ft.) Surface Portland Coment Grout Comments: THIS IS BORING A SOIL NOT A WELL Name of Person or Firm Doing Sealing Work (10) FOR DNR OR COUNTY USE ONLY Matthew Data Received/Inspected Swaucon District/County Parsons Engineering Science, he grature of Person Doing Work Date Signed Reviewer/Inspector 119 195 Street or Route Telephone Number 1700 Broadway, Ste. 900 (303)831-8100 Follow-up Necessary

GENERAL INFORMATION	(2) FACILITY NAME					
Well/Drillhole/Borehole County	Original Well Owner (If Known)					
Location DANE	AS BELOW					
Ø E	Present Well Owner					
SE 1/4 of NW 1/4 of Sec. 29; T. 8 N. R. 10	WISCONSIN AIR NATIONAL GUARD					
(If applicable)	Street or Route					
Gov't Lot Grid Number	3110 MITCHELL ST.					
Grid Location	City, State, Zip Code					
ft. N. S.,ft. E. W.	MADISON, WI 53704					
Civil Town Name	Facility Well No. and/or Name (If Applicable) WI Unique Well No.					
	CPT 3 (Hand Auger)					
Street Address of Well	Reason For Abandonment					
3110 MITCHELL ST.	TERMINATION OF BORING					
City, Village	Date of Abandonment					
MADISON	9/16/94					
ELL/DRILLHOLE/BOREHOLE INFORMATION						
Original Well/Drillhole/Borehole Construction Completed On	(4) Depth to Water (Feet) 8.0					
	Pump & Piping Removed? Yes No Not Applicable					
(Date) 7 [16] 99						
Monitoring Well Construction Report Available?	I I I I I I I I I I I I I I I I I I I					
	Z Not Applicable					
☐ Water Well ☐ Yes ☒ No	J D D					
Drillhole	If No. Explain THIS IS A BURING, NOT A WELL					
⊠ Borehole	Was Casing Cut Off Below Surface? Yes ▼ No					
a m	Did Sealing Material Rise to Surface? X Yes No					
Construction Type: Drilled Driven (Sandroint) Dug	Did Material Settle After 24 Hours? Yes No					
D Dirital (Sanspoun)	If Yes, Was Hole Recopped? Yes No					
M Other (Specify) DANEN W/ CONE PENET ROMETER						
	(5) Required Method of Placing Sealing Material					
Formation Type: Variation Bedrock Bedrock Bedrock Company Compa	Conductor Pipe-Gravity Conductor Pipe-Pumped					
	Dump Bailer Other (Explain)					
Total Well Depth (ft.) 6.5 Casing Diameter (ins.) NA	(6) Sealing Materials For monitoring wells and					
(From groundsurface)	Neat Cement Grout monitoring well boreholes only					
	Sand-Cernent (Concrete) Grout					
Casing Depth (ft.) N/A	Concrete Bentonite Pellets					
TAUT	Clay-Sand Slurry Granular Bentonite					
Was Well Annular Space Grouted? Yes No Unknown						
If Yes, To What Depth? Feet	Chipped Bentonite					
	No. Yards,					
Sealing Material Used	From (Ft.) To (Ft.) Sacks Sealant or Volume Mix Ratio or Mud Weight					
orthand Coment Growt	Surface 6.5					
Comments: THIS IS A SOIL BORING, NOT	A WELL					
Name of Person or Firm Doing Seading Work	(10) FOR DNR OR COUNTY USE ONLY					
Matthew A. Swanson / Passons Engineering Science, la	Date Received/Inspected ////////////////// District/County					
Signature of Derson Doing Work Date Signed						
Matte-11. Au 119195	Reviewer/Inspector					
Street or Route Telephone Number	1					
Street or Route 1800 Broadway, Ste. 900 (303)831 - 8100	Follow-up Necessary					
	Reviewer/Inspector					

٠,	GENERAL INFORMATION		(2)	FACILI	TYNAME		
	Well/Drillhole/Borehole	County		Original	Well Owner	(lf Known)	
	Location	DANE	1	As B	BELOW		
_		XI E	1	Present	Well Owner		
	SE 1/4 of NW 1/4 of Sec.	29 : T. 8 N. R. 10 TH		WISC	CNSIN	AIR NAT	IONAL GUARD
	(If applicable)		1	Street or			
	Gov't Lot	Grid Number	1	3110	MITCH	ELL ST.	
_	Grid Location		1		ate, Zip Code		
	ft. N. S	н. П. Е. П. w.		MADI	SON. U	ر 5	3704
	Civil Town Name		+	Facility \	Well No. and	or Name (II App	
			10	PT-	7 (Han	d Auger	> ·
-	Street Address of Well		+-~	Reason	For Abandon		
	3110 MITCHELL S	r		TER	MINATIO	N OF BO	DRING
	City, Village		1		Abandonment		2,121/4
	MADISON		1		9/16/9		
Vi	LL/DRILLHOLE/BOREHOL	E INFORMATION			C) C)	 -	
)	Original Well/Drillhole/Borehole		(4)	Depth to	Water (Feet)	7	
	o Lu la i		1"	•	Piping Remo		es 🔲 No 🔀 Not Applicable
	(Daic) 9/16/99			-	Removed?		
	□ v : · · w ·	Construction Report Available?			emoved?	بيا	es No [X] Not Applicable
	Monitoring Well	•	1		eft in Place?	_ L.J _	es No 🔀 Not Applicable
	Water Well	Yes 🛛 No			xplain Tri	لسا	(A)
	Drillhole			11 110, 27	Aprani 177	1s is A Bo	PRINC, NOT A WEL
	M Borehole			Was Cas	ing Cut Off I	Palous Surface?	C Ves 871 No
					-	Below Surface?	☐ Yes X No
	onstruction Type:	m (Sandroint) Dug			•	Rise to Surface?	X Ys No
	<u> </u>	ar (Sanopount)	1			ter 24 Hours?	☐ Y∝ ☒ No
		W CONE PENETROMETER	.	11 1 65,	, Was Hole Re	emppea:	☐ Yes ☐ No
		-AUGERED	(5)	Required	Method of P	lacing Sealing M	aterial
	Formation Type:				luctor Pipe-G		onductor Pipe-Pumped
	Unconsolidated Formation	☐ Bedrock		Dum:	_		Other (Explain)
	Total Well Depth (ft.)	Casing Diameter (ins.) N/A	(6)	Sealing !	<u> </u>	<u>~</u>	For monitoring wells and
	(From groundsurface)	casing Diamosi (ass) (4)			Cement Grou	16	monitoring well boreholes onl
	(From groundsurace)			=	-Cement (Cor		monutaring went continues on
	Casing Depth (ft.) N/A				•	icreie) Groat	Bentonite Pellets
	Casing Depth (ft.) N/A			=		į	Granular Bentonite
	W W W A A G G .	12			-Sand Slurry	i	Bentonite - Cement Crout
	Was Well Annular Space Grouted	——————————————————————————————————————		==	onite-Sand SI	,	Bentonite - Cement Grout
_	If Yes, To What Depth?	Feet			ped Bentonite		
)	Sealing Ma	terial I lead	E-	om (Ft.)	To (FL)	No. Yards, Sacks Sealant	Mix Ratio or Mud Weight
	Scarritg Ivia	Series Court	LF	on (FL)	10(FL)	or Volume	o. mod merght
_			S	urface	8		
o	Hand Consut Gro	ot					
					L		
			T				
			1				
-			1				
			1		<u></u>		
5	Comments: This IS A	SUIL BURING, NOT	A	WELL			
				*** <u>*</u> C			
	ame of Person or Firm Doing S	ealing Work	т-	(10)	FOR	DNR OR CO	OUNTY USE ONLY
				* * * * * * * * * * * * * * * * * * * *	1 011		
				Date	Receivedian	world William I'm	District County
	Matthew A. Swanson	Persons Engineering Science, In	r	Date	Received/Insp	ected	District/County
		Parsons Enginearing Science, In [Date Signed]	r	100	an hin	-	
	Matter A. Swarch Signature of Depton Doing Work	Parsons Enginearing Science, la Date Signed 1 9 195	k-	100	Received/Inspecto	-	
	Matthew A. Swanson	Date Signed 1 9 95 Telephone Number		Revie	an hin		

GENERAL INFORMATI	ON		TYNAME	•	
Well/Drillhole/Borehole	County	Original	Well Owner	(If Known)	
Location	DANE	A & B	FLOW		
	()	Present	Well Owner		
SE 1/4 of NW 1/4 of Sa	c. 29 ; T. 8 N. R. 10 W	WISC	CNSIN	AIR NAT	ICNAL GUARD
(If applicable)		Street or	Route		
Gov't Lo	t Grid Number	3110	MITCH	ELL ST.	
Grid Location		City, St	ue, Zip Code		
ft. N.	S., ft E W.	MADI	son . L		3709
Civil Town Name		Facility	Well No. and	or Name (If App	olicable) WI Unique Well No.
		CPT-9	1 (Hand	d Auger)	1
Street Address of Well		Reason	or Abandoni		
3110 MITCHELL	ST.	TER	MINATIO	N OF B	ORING
City, Village			bandonment		
MADISON		1	1/16/94		
LL/DRILLHOLE/BOREH	OLE INFORMATION				
	ole Construction Completed On	(4) Depth to	Water (Feet)	6.5	****
(Date) 9(16/94	•	1	Piping Remo		es 🔲 No 🔀 Not Applicable
(Dat) 1110/17			Removed?		Yes No No Applicable
Monitoring Well	Construction Report Available?	1	emoved?		es No Not Applicable
Water Well	Yes 🛛 No	1	eft in Place?	H ÷	s No
Drillhole	LIG KIN	1	plain Tri		CRING, NOT A WELL
M Borchole	1			12 17 17	CETAGO, ROST II WELL
[X] Borenoie		Was Cas	ing Cut Off F	Below Surface?	Yes X No
Construction Terror		1	-	Rise to Surface?	X Ys No
Construction Type:	riven (Sandroint) Dug	Ì	•	fter 24 Hours?	Yes ⊠ No
	Tran (oundpoint)	1	Was Hole Re		
	LIN/ CONT PENET ROMETER				
Formation Type:	HAGERED	(5) Required	Method of P	lacing Sealing M	laterial
Unconsolidated Formation	☐ Bedrock	Cond	uctor Pipe-G	ravity 🔼C	onductor Pipe-Pumped
M Onconsolidated Formation	1	Dum	Bailer Bailer		Other (Explain)
Total Well Depth (ft.)	Casing Diameter (ins.) N/A	(6) Sealing l	Materials		For monitoring wells and
(From groundsurface)	,	⊠ Neat	Cement Grou	at .	monitoring well boreholes onl
,		Sand	-Carnant (Cor	ncrete) Grout	•-
Casing Depth (ft.) NA		Conc	rete	;	Bentonite Pellets
		☐ Clay	Sand Slurry	i	Granular Bentonite
Was Well Annular Space Grou	iteci? 🔲 Yes 🗌 No 🔲 Unknown	☐ Bent	onite-Sand Sl	urry ¦	Bentonite - Cement Grout
If Yes, To What Depth?	Feet	Chip	ped Bentonite	, '	
				No. Yards,	T The state of the
Sealing l	Material Used	From (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
		 		or Volume	
Hand Conent G.	-0.3+	Surface	6		
TIMES (ZIMENTI C.	1801				
		}			
		 		 	
				ŀ	1
		 		ļ	
				}	
	0.00	1		<u> </u>	<u> </u>
Comments: THIS IS	A SOIL BORING, NOT	A WELL			
	6 1: 37 1	T (10)		· DND · OD · C	OF INDIVIDUAL CONTRACTOR
Name of Person or Firm Doin	- 70 -	(10)			OUNTY USE ONLY
Matthew A. Swanson	in Parsons Engineering, Science, lu	Date	Received/Insp	ected	District/County.
Signature of Derson Doing W	ork Date Signed				
Math 1 Sum	1995	Revi	wer/Inspecto	C	
Street or Route	Telephone Number		- 48,858		
·	900 (303)83(-8100	Follo	w-up Necess	try in the	
City, State, Zip Code	:77£	1 1		Section 1975	

) GENERAL INFORMAT	ION	(2) FACILITY NAME						
Well/Drillhole/Borehole	County	Origin	l Well Owner	(If Known)	···			
Location	DANE	A>_	BELOW					
	⊠ E	Present	Well Owner					
SE 1/4 of NW 1/4 of Se	«. <u>29</u> ; т. 8 N; R. 10 🗇 н	WIS	CONSIN	AIR NAT	IONAL GUARD			
(If applicable)			r Route					
Gov't La	ot Grid Number	3110	O MITCH	IELL ST.				
Grid Location		City, S	tate, Zip Cod	e				
ft. N.	l s., ft. ☐ E. ☐ W.	MAD	ISON, 1	خ ۱س	3704			
Civil Town Name		Facility	Well No. and	Vor Name (II Ap	plicable) WI Unique Well No.			
		1 CPT-	18 (Hand	1 Auxer				
Street Address of Well			For Abandon					
3110 MITCHELL	ST.	TER	MINATIO	ON OF B	ORING			
City, Village			Abandonmen		10 K 1/4 (F			
MADISON			9/15/94					
ELL/DRILLHOLE/BOREF	IOLE INFORMATION		.,					
	hole Construction Completed On	(4) Depth	o Water (Feet	1) 4.0				
0110.		1	& Piping Rem		Yes No No Not Applicabl			
(Date) 9/15/94	<u> </u>		k Piping Kem) Removed?					
	la a n a a a a a a a a a a a a	1	Removed?		Yes No No Not Applicabl			
Monitoring Well	Construction Report Available?		Left in Place?		Yes No Not Applicabl			
Water Well	☐ Yes No	1			(cz 🔯 No			
☐ Drillhole		II No, I	xplain <u>Tri</u>	IS IS A B	CRING, NOT A WEL			
⊠ Borehole	•	W 6	C + Off.	D. 1 C f 2				
			_	Below Surface?	☐ Yes X No			
Construction Type:			•	Rise to Surface?				
	Driven (Sandpoint) Dug	1		fter 24 Hours?	Yes No			
Other (Specify)	W W/ CONE PENET ROMETER	11 16	s, Was Hole R	tetopped?	Yes ☐ No			
	D-AUGERED	(5) Require	d Method of F	Placing Sealing M	1aterial			
Formation Type:	-	□ Cor	ductor Pipe-G	Fravity 🗖 C	Conductor Pipe-Pumped			
Unconsolidated Formation	n Bedrock	. =	np Bailer		Other (Explain)			
Total Well Depth (ft.) 5.8	Casing Diameter (ins.) N/A	(6) Sealing	<u> </u>		For monitoring wells and			
(From groundsurface)		`	t Cement Gro	out	monitoring well boreholes on			
(m g.o.z)		. ==	d-Cement (Co					
Casing Depth (ft.) N/F	.	1 ==	carete	, 4.521	Bentonite Pellets			
Cashing Departite) 10/1			y-Sand Slurry		Granular Bentonite			
Was Well Annular Space Gro	outea? Tyes TNo TUnknown		tonite-Sand Si		Bentonite - Cement Grout			
If Yes, To What Depth?		1 ===	pped Bentonit	•	Demondre - Canena 1102			
If 165, 10 What Deput		1 1 00	ppca Benaina		 			
Sealing	Material Used	From (FL)	To (FL)	No. Yards, Sacks Sealant	Mix Ratio or Mud Weight			
		110(1-)	10(1)	or Volume				
41010		Surface	5.8	1	1			
orthand Coment G	root	<u> </u>	12.0					
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<u> </u>		ļ	<u> </u>	<u> </u>				
			1		1			
		<u> </u>		<u> </u>	<u> </u>			
Comments: This is	A SOIL BURING, NOT	A WEL	L					
Name of Person or Firm Doi	ng Sealing Work	(10)	FOF	NOR OR C	OUNTY USE ONLY			
Matthew A. Sware	on Parsons Engineering Science, la	Dat	Received/Ins	pected /////	District/County			
Signature of Derson Doing W	ork Date Signed	7 1986						
Matter 1 Line	119195	Rev	iewer/Inspecto	x				
Street or Route	Telephone Number	† [···		X				
	. 700 (3e3)83(-8100			ary				

abandonment work shall be performed in accordance with the nin. Code, whichever is applicable. Also, see instructions on	
GENERAL INFORMATION	(2) FACILITY NAME
Well/Drillhole/Borehole County	Original Well Owner (If Known)
Location DANE	AS BELOW
<u></u>	Present Well Owner
SE 1/4 of NW 1/4 of S∞. 29; T. 8 N. R. 10 □ W	1
	WISCENSIN AIR NATIONAL GUARD Street or Route
(If applicable)	l
Gov't Lot Grid Number	3110 MITCHELL ST.
Grid Location	City, State, Zip Code
ft. N. S.,ft. E. W.	MADISON WI 53704
Civil Town Name	Facility Well No. and/or Name (If Applicable) WI Unique Well No.
	CPT-20 (Hand Auger)
Street Address of Well	Reason For Abandonment
3110 MITCHELL ST.	TERMINATION OF BORING
City, Village	Date of Abandonment
	1 7 .
MADISON	9 6 94
VELL/DRILLHOLE/BOREHOLE INFORMATION	In Oak W. (C.)
Original Well/Drillhole/Borehole Construction Completed On	(4) Depth to Water (Feet) 7.0
(Date) 9/16/94	Pump & Piping Removed?
	Liner(s) Removed? Yes No Not Applicable
Monitoring Well Construction Report Available?	Screen Removed? Yes No Not Applicable
☐ Water Well ☐ Yes 🛛 No	Casing Left in Place? Yes No
Drillhole	l
	If No. Explain THIS IS A BORING, NOT A WELL
⊠ Borehole	Was Casing Cut Off Below Surface? Yes No
	,
Construction Type:	Did Sealing Material Rise to Surface? X Yes No
Drilled Driven (Sandpoint) Dug	Did Material Settle After 24 Hours? Yes 🔀 No
Other (Specify) DRIVEN WIL COME PENET ROMETER	If Yes, Was Hole Retopped? Yes No
HAND-AUGERED	(5) Required Method of Placing Sealing Material
Formation Type:	i
Unconsolidated Formation Bedrock	Conductor Pipe-Gravity Conductor Pipe-Pumped
,	Dump Bailer Other (Explain)
Total Well Depth (ft.) 7.0 Casing Diameter (ins.) \sqrt{A}	(6) Sealing Materials For monitoring wells and
(From groundsurface)	Neat Cement Grout monitoring well boreholes only
	Sand-Cement (Concrete) Grout
Casing Depth (ft.) NA	Concrete Bentonite Pellets
	Clay-Sand Slurry Granular Bentonite
Was Well Annular Space Grouted?	Bentonite-Sand Slurry Bentonite - Cement Grout
	Chipped Bentonite
If Yes, To What Depth? Feet	<u> </u>
Seeling Manada Manada	No. Yards, Mir Patio or Mud Waight
Sealing Material Used	From (Ft.) To (Ft., Sacks Sealant Mix Ratio or Mud Weight or Volume
orthand Coment Growt	Surface 7.0
- Contract City	
	1
Comments: This is A SOIL BORING, NOT	A WELL
Name of Person or Firm Doing Seading Work	(10) FOR DNR OR COUNTY USE ONLY
Matthew A. Swanson Parsons Engineering Science, la	
Signature of Person Doing Work Date Signed	7.000
	Rether(Immerica)
	Reviewer/Inspector
Street or Route Telephone Number	
120 Broadway, Ste. 900 (303)931-8100	Follow-up Necessary
City, State, Zip Code	
The survey of the State of the	

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

abandonment work shall be performed in accordance with the nin. Code, whichever is applicable. Also, see instructions or							
GENERAL INFORMATION	(2) FACILITY NAME						
ell/Drillhole/Borehole County	Onginal Well Owner (If Kno n)						
weation CDT-3 Dane	Wisconsin Air National Guard						
	Present Well Owner						
SE 1/4 of NW 1/4 of Sec. 29 : T. 8 N. R. 10 14	1						
(If applicable)	Street or Route						
Gov't Lot Grid Number	3110 Mitchell St.						
Grid Location	Ciry, State, Zip Code						
	Madison WI 53704						
ft. N. S., ft. E. W.	Facility Weil No. and/or Name (If Applicable) WI Unique Weil No.						
	, , , , , , , , , , , , , , , , , , , ,						
Street Address of Well	Reason For Abandonment						
Jucet Addition of Well							
City, Village	Prevent potential groundwater continue						
City, Vinage	11-7-94						
CLIANDILLIAL CANDACTIOL C. INCORMATION	1 / / / 1						
ELL/DRILLHOLE/BOREHOLE INFORMATION	(4) Depin to Water (Feet)						
Original Well/Dnillhole/Borehole Construction Completed On							
$(Dale) \qquad 11 - 7 - 94$	Pump & Piping Removed? Yes No Not Applicable						
	Liner(s) Removed? Yes No Not Applicable						
Monitoring Well Construction Report Available?	Screen Removed? Yes No Not Applicable						
☐ Water Well ☐ Yes ☒ No	Casing Left in Place? Yes \(\sime\) No						
☐ Drillhole	If No. Explain This is a soil boring						
⊠ Borehole							
	Was Casing Cut Off Below Surface? Yes No						
Construction Type:	Did Sealing Material Rise to Surface? 🔀 Yes 🗍 No						
☑ Drilled ☐ Driven (Sandpoint) ☐ Dug	Did Material Settle After 24 Hours? Yes No						
Other (Specify)	If Yes, Was Hole Retopped? Yes No						
Formation Type:	(5) Required Method of Placing Sealing Material						
☐ Unconsolidated Formation ☐ Bedrock							
Total Well Depth (ft.) 58 Casing Diameter (ins.) DA	(6) Sealing Materials For monitoring wells and						
(From groundsurface)	Neat Cement Grout monitoring well boreholes only						
	Sand-Cement (Concrete) Grout						
Casing Depth (ft.) NA	Concrete Bentonite Pellets						
	Clay-Sand Slurry 📗 🖸 Granular Bentonite						
Was Well Annular Space Grouwd? Yes 🔀 No 🔲 Unknown	, — , — , — , — , — , — , — , — , — , —						
If Yes, To What Depth? Feet	Chipped Bentonite						
	No. Yards,						
Sealing Material Used	From (Ft.) To (Ft.) Sacks Sealant Mix Ratio or Mud Weight or Volume						
Granular Rentonite	Surface 5.8 10 Ks. Dry						
COLUMNZER REDIONILE							
							
Company							
Comments: This is a soil boring A	ot a well						
<u> </u>	1.00						
Name of Person or Firm Doing Sealing Work	(10) FOR DNR OR COUNTY USE ONLY						
Steve Gaffield /872	Date Received/Inspected District/County						
Signature of Person Doing Work Date Signed							
Alex Galheld 11-7-94	Reviewer/Inspector						
Street or Route Telephone Number							
3118 Watterd Why (608) 277-2840	Follow-up Necessary						
City, State, Zip Code							
Madiem WT 527/3	<u> </u>						

WELL/DRILL/BOREHOLE OWNER

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

W	GENERAL INFORMATION			TYNAME		
	Vell/Drillhole/Borehole County				(lf Known)	· · · · · · · · · · · · · · · · · · ·
•)	Location CPT7 Dane	1 h	lisc	onsi'h	Air Nots	nal Guard
	Σ ε	Pr	eseni	Well Owner		
	$SE_{1/4 \text{ of } DW 1/4 \text{ of Sec. } 29 \text{ : T. } 8 \text{ N; R. } 10 W$	1 6	25	abor	æ	
	(If applicable)	7				
	Gov't Lot Grid Number	1	311	o Mi-	toboll	St.
	Grid Location	C	ity. St	ate, Zip Cod	tchell	
		1 /	Ma	01 25W	$\gamma = I \mathcal{U} \perp$	< ?7a4
	ft. N. S., ft. E. W.	Fa	cility	Well No. and	vor Name (II Ap	plicable) WI Unique Weil No.
		l				1
	Street Address of Well	R	ason l	For Abandon	ment	
		ρ_{c}	000	nt note	intol or	and later antimin
	City, Village	D.	ate of	Abandonmen		sunderator continue
				11 - 7	-94	
WE	LL/DRILLHOLE/BOREHOLE INFORMATION					
(3)	Original Well/Drillhole/Borehole Construction Completed On	(4) D	epth to	Water (Feet) 7.5	
	(Date) $11-7-94$	Pu	ump &	Piping Rem	oved?	Tes 🔲 No 🔯 Not Applicable
		1	-	Removed?		Yes No Not Applicable
	Monitoring Well Construction Report Available?	Sc	reen R	emoved?		(es No Not Applicable
	☐ Water Well ☐ Yes ☑ No	Ca	sing L	eft in Place?	·	(es □ No
	Dnilhole	lf i	No, E	tplain 77		Soil broine
	⊠ Borehole			•		
		\overline{w}	as Cas	ing Cut Off	Below Surface?	☐ Yes ☐ No
	Construction Type:	1		-	Rise to Surface?	— —
	∑ Drilled ☐ Driven (Sandpoint) ☐ Dug	2		-	fter 24 Hours?	∏ Y≈ ⊠ No
	Other (Specify)]]	lf Yes,	Was Hole R	etopped?	∏ Yes ∏ No
1		(C P a		Markad of E	Placing Sealing M	
	Formation Type:	ı''				
	☐ Unconsolidated Formation ☐ Bedrock	_ =		uctor Pipe-G		onductor Pipe-Pumped
	•			Bailer .		Other (Explain)
	Total Well Depth (ft.) 8.3 Casing Diameter (ins.) NA	_		Materials		For monitoring wells and
	(From groundsurface)	ᅵ片		Cement Gro		monitoring well boreholes only
	7.1	ᅵ片			ncrete) Grout	
	Casing Depth (ft.)	ᅵ片	Conc		i	Bentonite Pellets
		ᅵ片	•	Sand Slurry	1	Granular Bentonite
	Was Well Annular Space Grouted?			onice-Sand SI		Bentonite - Cement Grout
	If Yes, To What Depth?	<u> </u>	Chip	ped Bentonite		
\overline{O}	Sealing Material Used	E	(E:)	T. (E.)	No. Yards, Sacks Sealant	Mix Ratio or Mud Weight
	Setting Marchae Osco	From	(FL)	To (FL)	or Volume	With Ratio of Mad Weight
		Surf	ace	O 2	22/10	~
	Granular Rentonite			8.3	20/BS.	Dry
						/
					<u> </u>	
					i .	
			1		1	
700		<u> </u>				
(8)	Comments: This is a soil boring A	2+	a	wel	<u> </u>	
	<u> </u>					
(9)	Name of Person or Firm Doing Sealing Work		(10)			DUNTY USE ONLY
	Step Gaffield /BT2		Date l	Received/Insq	ected	District/County
	Signature of Person Doing World Date Signed		X			
	Awi Falled		27	wer/Inspector	ti tiki diwanishi sitesti.	ppriling of the state of the st
	Street or Route Telephone Number			a second		
	3113 hattord hay (608) 277-2840		Follo	w-up Necessa	шУ	no casa interes e de la companya de la companya de la companya de la companya de la companya de la companya de La companya de la companya de la companya de la companya de la companya de la companya de la companya de la co
	City, State, Zip Code					** * *
	Madison WI 53713					

WELL/DRILL/BOREHOLE OWNER

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

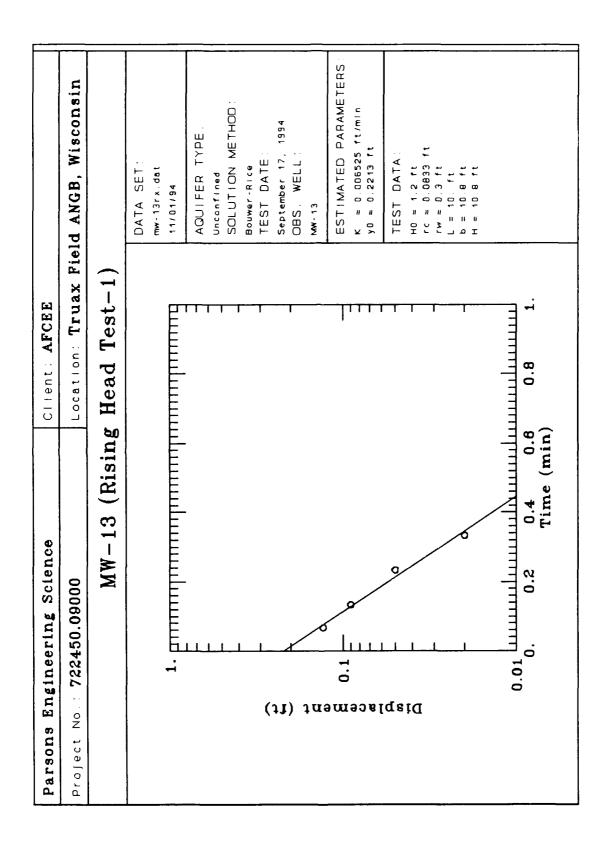
GENERAL INFORMATION	(2) FACILITY NAME
ell/Drillhole/Borehole County	Onginal Well Owner (If Known)
Location CPT-9 Dane	Wisconsin Air National Guard Present Well Owner
SE 1/4 of NW 1/4 of Sec. 29; T. 8 N. R. 10 H	Present Well Owner
3E 1/4 of PW 1/4 of Sec. 29; T. 8 N. R. 10 1	as above
	Street or Route
Grid Number Grid Location	Street or Route 310 Mitchell St. Ciry, State, Zip Code
	City, state, Zip Code
ft. N. S., ft. E. W	Madi Son WI 53704 Facility Well No. and/or Name (If Applicable) WI Unique Well No.
	Takiniy Wen 140. and of France (if Applicable) WI Onique Wen 140.
Street Address of Well	Reason For Abandonment
Succi Addiess of Weil	
City, Village	Prevent potential groundcuter contamina
V.	11-7-94
WELL/DRILLHOLE/BOREHOLE INFORMATION	<u></u>
(3) Original Well/Drillhole/Borehole Construction Completed On	(4) Depth to Water (Feet) —
$(Date) \qquad 11 - 7 - 34$	Pump & Piping Removed? Yes No Not Applicable
(Date)	Liner(s) Removed? Yes No Not Applicable
Monitoring Well Construction Report Available?	Screen Removed? Yes No Not Applicable
☐ Water Well ☐ Yes ☒ No	Casing Left in Place? TYes No
□ Drillhole	If No, Explain This is a soil box
Borehole	C
	Was Casing Cut Off Below Surface? Yes No
Construction Type:	Did Sealing Material Rise to Surface? Xes No
☑ Drilled ☐ Driven (Sandpoint) ☐ Dug	Did Material Settle After 24 Hours? Yes 🖂 No
Other (Specify)	If Yes, Was Hole Retopped? Yes \(\backslash No
	(5) Required Method of Placing Sealing Material
Formation Type:	
☐ Unconsolidated Formation ☐ Bedrock	Conductor Pipe-Gravity Conductor Pipe-Pumped Dump Bailer Other (Explain)
Total Well Depth (ft.) 6-6 Casing Diameter (ins.) NA	Dump Bailer Other (Explain) (6) Sealing Materials For monitoring wells and
(From groundsurface)	Neat Cement Grout monitoring well boreholes only
(From groundsurace)	Sand-Cement (Concrete) Grout
Casing Depth (ft.)	Concrete Bentonite Pellets
Cashing Deput (ite)	Clay-Sand Slurry Granular Bentonite
Was Well Annular Space Grouted? Yes 🔀 No 🔲 Unknow	
If Yes, To What Depth? Feet	Chipped Bentonite
	No. Yards,
(7) Sealing Material Used	From (Ft.) To (Ft.) Sacks Sealant Mix Ratio or Mud Weight
	or Volume
Granular Rentonite	Surface 6.0 10 16s. Dry
CIANULAY REPIONITE	1 1000 1000 1000
	
(8) Comments: This, is a soil boring	rot a well
This is a soil boring	roi a with
(9) Name of Person or Firm Doing Sealing Work	(10) FOR DNR OR COUNTY USE ONLY
Steve Gaffield 1872	Date Received/Inspected District/County
Signature of Person Downg World Date Signed	
Here Stillion	Reviewer/Inspector
Street or Route Telephone Number	
3118 Watterd how (608) 277-2840	Follow-up Necessary
City. State, Zip Code	
Madison WI 53713	
	UBOREHOLE OWNER

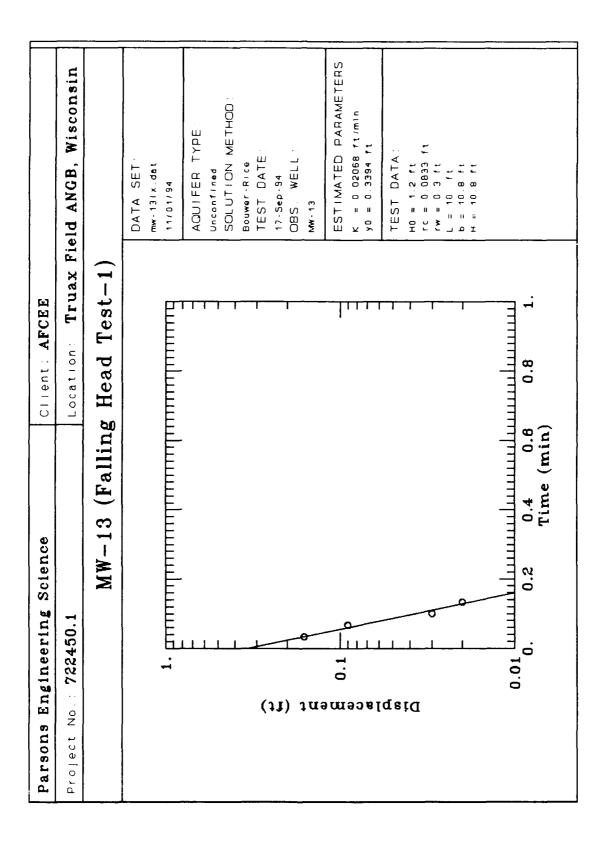
WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5W 11-89

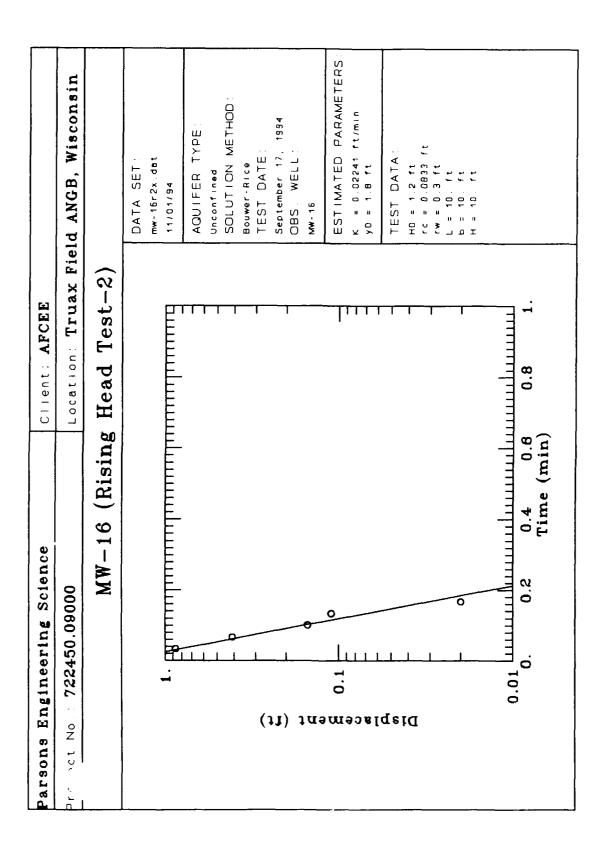
All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

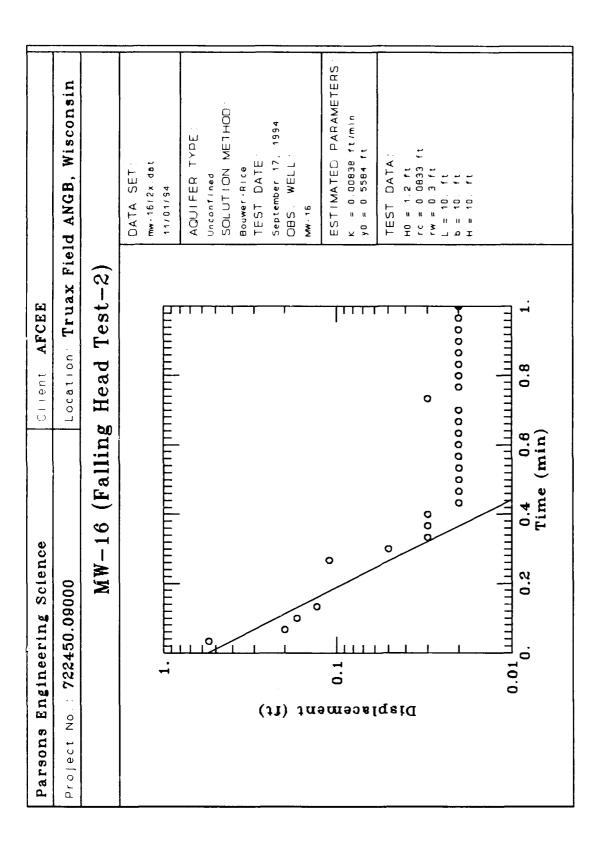
<u>U</u>	GENERAL INFORMATION		ITY NAME	•	
	Vell/Drillhole/Borehole County		l Well Owner		,
1)	Location CPT-20 Dune	Wisc	ิชกรโก	Air Noto	nal Guard
		Present	Well Owner		
	<u>SE</u> 1/4 of <u>NW</u> 1/4 of Sec. <u>29</u> ; T. <u>8</u> N. R. <u>10</u> (If applicable)	i as	1		
	(If applicable)	Street	or Route		
	· · · · · · · · · · · · · · · · · · ·			tchell	5+
		311	tate, Zip Cod	Chell	J (.
	Grid Location	City, 3	Late Zip Cod	e / .1.7*	C 274 . //
	ft. N. S.,ft. E. W	. /40	1012, CN	$1 \cdot \mathcal{W} \perp$	53704 plicable) WI Unique Well No.
	Civil Town Name	Facility	Well No. and	/or Name (II Ap	plicable) WI Unique Well No.
	Street Address of Well				l
	Street Address of Well	Reason	For Abandon	ment	
		Preve	nt pota	ntial or	sunduater contamina
	Ciry, Village	Date of	Abandonmen	ı =	
	\checkmark	1 (-7-0	94	
WE	LL/DRILLHOLE/BOREHOLE INFORMATION			' 	
	Onginal Well/Dnilhole/Borehole Construction Completed On	(4) Depth !	o Water (Feet)	
` '		1			Yes ☐ No 🖂 Not Applicable
	(Date) $1-7-94$		c Piping Removed?		- -
	—	``		╝.	Yes No Not Applicable
	Monitoring Well Construction Report Available?		Removed?		les No Not Applicable
	☐ Water Well ☐ Yes ☒ No	Casing	Left in Place?	, 🔲 ,	(¤ ∑ №)
	☐ Drillhole	If No. E	xplain	nis is a	soil bring
	⊠ Borehole				<u> </u>
		Was Ca	sing Cut Off I	Below Surface?	☐ Yes ⊠ No
	Construction Type:	Did Sea	ling Material	Rise to Surface?	🛱 Yes 🗍 No
	☑ Drilled ☐ Driven (Sandpoint) ☐ Dug	Did Ma	terial Settle A	fter 24 Hours?	Yes 🔯 No
	Other (Specify)	If Yes	, Was Hole R	etopped?	ЙүсЙм
1	Odla (Sparry)	-		••	
	Formation Type:	1		lacing Sealing N	latenal
		⊠ Con	ductor Pipe-G	ravity 🔲 🖯	onductor Pipe-Pumped
		Dun	p Bailer		Other (Explain)
	Total Well Depth (ft.) 7. S Casing Diameter (ins.) NA	(6) Sealing			For monitoring wells and
	(From groundsurface)	· — ·	t Cement Gro	nf	monitoring well boreholes only
	(Trom grounds arises)	. =	i-Cement (Cor		morability well bottometer only
	Coming Death (6) 111	Con		ilereit, Great	Bentonite Pellets
	Casing Depth (ft.)	1 =		1	Granular Bentonite
		· = ·	-Sand Slurry		
	Was Well Annular Space Groutze? Yes No Unknow		tonite-Sand Sl	-	Bentonite - Cement Grout
	If Yes, To What Depth? Feet	☐ Chi	ped Bentonite	: '	
0		T T		No. Yards,	Mis Date and Wat he
	Sealing Material Used	From (Ft.)	To (Ft.)	Sacks Sealant or Volume	Mix Ratio or Mud Weight
		 			
	Granular Rentonite	Surface	7.5	15/LS.	Drv
—	STATIONALLY RETURNITE			/	/
]			,
			 		
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		_	ļ		
		1	1		
7474				<u></u>	
(8)	Comments: This, is a soil boring	not a	wel	<u> </u>	
	J'				
(9)	Name of Person or Firm Doing Sealing Work	(10)			DUNTY USE ONLY
	Steve Gaffield /BT2	Date	Received/Insp	ected	District/County
	Signature of Person Dople Work Date Signed	7 1			
	Atève Hat Ries	Revi	ewer/Inspector		
	Street or Route Telephone Number	-			
	2/2 1/ (/ / / / / / / / / / / / / / / / / /	100		ıry	
	City, State, Zip Code	- F. C. C.	14.0h 1400022	" "	
			19 1, 8 9 1, 9	r sala V	
	Madison WI 53713				

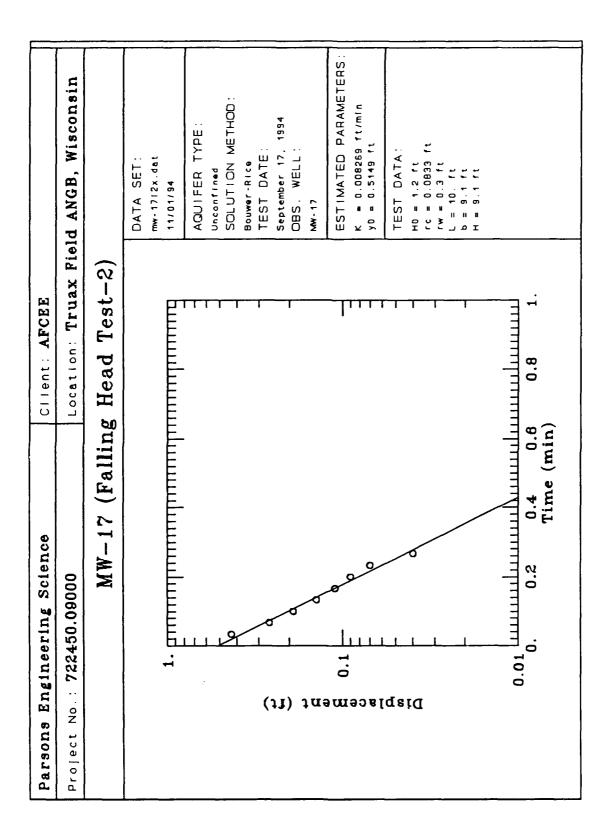
WELL/DRILL/BOREHOLE OWNER











APPENDIX B

LABORATORY ANALYTICAL DATA



November 7, 1994

MS GAIL SAXTON
ENGINEERING SCIENCE INC
1700 BROADWAY STE 900
DENVER CO 80290

Data Report : 94-3495, 94-3516,

94-3542, 94-3553

Client Project : Madison ANG

Dear Ms. Saxton:

Enclosed are the analytical results for the samples shown in the Sample Log Sheet. The enclosed data have been reviewed for quality assurance. If you have any questions concerning the reported information, please contact Mark Mensik, Project Manger, or me.

Please Note: Samples will be retained in accordance with the terms of the subcontract.

The invoice for this work will be mailed to your Accounts Payable department shortly.

Thank you for using the services of Evergreen Analytical.

Sincerely,

Jack Barney President

тм



CASE NARRATIVE

Evergreen Analytical Projects: 94-3495, 94-3516, 94-3542, 94-3553

Engineering Science, Inc. (ES) Project: Madison ANG

Subcontract Number: 722450.SC02

Sample Receipt

Between September 14 and September 17, 1994, soil and groundwater samples were received at Evergreen Analytical Laboratory (EAL) for analysis under the subcontract referenced above. Refer to the EAL Check-in Record for specific information regarding the condition of samples upon receipt at EAL. Refer to the EAL Sample Log Sheet for specific log-in information and cross-reference of EAL and ES sample identifications.

The sample identified as CPT-20 on the chain-of-custody for samples taken on September 16, 1994 and received at EAL on September 17, 1994 was identified as CPT-20S on the container labels. The identification CPT-20 was used on all hard copy and electronic reports.

Missed Holding Times

The five water and six soil samples sampled on September 16, 1994 and received at EAL on September 17, 1994 were not analyzed within contract required holding times for BTEX/TMB, total volatile hydrocarbons and total extractable hydrocarbons. These samples were logged-in under EAL project number 94-3553. The samples are being re-sampled and will be re-analyzed for the aforementioned analytes under an agreement between EAL and ES dated October 31, 1994. All other analytes were analyzed within contract required holding times.

Data Package

All data are reported in one comprehensive package that is segregated based on EAL project number. Each EAL project represents a group of samples received on a given day, or in some instances, several days. The EAL Sample Log Sheet summarizes the samples represented in each EAL project.

A separate invoice for each EAL project number will be generated.

Quality assurance data may overlap from one EAL project to another. Matrix spike/matrix spike duplicate (MS/MSD) samples were analyzed and are included. Laboratory control samples were analyzed when required and also are included in the data package.

BTEX and Trimethylbenzenes (TMB)

Laboratory control sample LCS091794 analyzed on 9/17/94 exhibited low recoveries for benzene and toluene, each were 1 ug/L below the lower

Evergreen Analytical, Inc. 4036 Youngfield St. Wheat Ridge, CO 80033-3862 (303) 425-6021 FAX (303) 425-685

Page 2 Case Narrative Madison ANG

control limit. The MS/MSD data associated with this LCS were acceptable. The low benzene and toluene recoveries do not appear to affect the data, thus none of the associated samples were reanalyzed or qualified.

TMBs were not requested on the chain-of-custody for the soil samples, however, they were inadvertently included on the hard copy data reports. Gail Saxton of Engineering Science was informed of this and stated that this would not create a problem and requested that the TMBs remain on the hard copy reports. The TMB results are not included on the disk deliverables.

Chlorobenzene was detected in some samples, some at significant levels. Chlorobenzene was not reported on the hard copy reports nor was it requested as an analyte of interest on the chains-of-custody.

Some samples may have displayed high surrogate recoveries, but were not reanalyzed. The causes for high surrogates are explained below:

- 1. Increased injection of surrogate.
- Co-Elution with peaks near the retention time of the surrogate peak.
- Increased sensitivity of initial runs.

The first two reasons above are self explanatory. The third requires elaboration as follows:

Increased sensitivity of initial runs is caused by the lamp in the photoionization detector. When a clean lamp is put into the detector the first runs using the lamp are more sensitive to any compound found in the sample. As more samples are run using the lamp, the lamp becomes clouded (dirty), decreasing its sensitivity. Likewise, the first runs of each day will be more sensitive than later runs. Since blanks are generally run early in the day, they have a tendency, along with other samples run early in the day, to exhibit high surrogate recoveries.

Total Extractable Hydrocarbons (TEH)

There were no MS/MSD samples analyzed for water matrix samples due insufficient sample volume.

There are no reported MS/MSD results for soil matrix samples due to the fact that the sample scheduled for spiking was with the group of missed holding times and thus is not available.

Total Volatile Hydrocarbons (TVH)

There were no quality control anomalies to report.

<u>Methane</u>

Methane was analyzed using method RSKSOP-175 rather than RSKSOP-147. This method was supplied by Joe Fernando of MITRE Corporation during the

Page 3 Case Narrative Madison ANG

recent audit he conducted on behalf of AFCEE.

There were no quality control anomalies to report.

Total Organic Carbon in Soil, Dissolved Organic Carbon in Water
Total organic carbon (TOC) in soil and dissolved organic carbon (DOC) in
water were analyzed by Huffman Laboratories of Golden, Colorado. TOC
was determined by analyzing for total carbon (TC) and inorganic
(carbonate) carbon (CC), the difference is then calculated and reported
as TOC. The reports from Huffman are included.

The TOC in soil results reported by Huffman are not adjusted for moisture content. The results on the disk deliverables are adjusted for moisture content, however. All TOC in soil results are reported on a percent basis.

The original QC data for the DOC analyses are in the data package with EAL project 94-3495. A photocopy of the report is in the data package with project 94-3516. The TOC results included with the DOC results are from the Ellsworth AFB project under subcontract 725520.SC03.

Anions

Chloride, sulfate, nitrite as N, and nitrate as N were analyzed by ior chromatography, EPA Method 300.0.

There were no quality control anomalies to report.

Alkalinity

There were no quality control anomalies to report.

Disk Deliverables

The disk deliverables are also included with the hard copy data package.

The total xylenes results on the hard copy and the disk deliverable are reported using two significant figures. The disk deliverable also includes results for m/p-xylene and o-xylene that are not reported on the hard copy. These results are reported using three significant figures in some instances.

A hardcopy of each spreadsheet included on the diskette are included. The name for each file is located in the top left corner on the first page of each spreadsheet printout.

The electronic deliverables are reported on Microsoft Excel version 5.0. Previous electronic deliverables were reported using Microsoft Excel version 4.0.

Mark J. Mensik Project Manager

Wergreen Analytical Sample Log	Sheet	Project # <u>94-3542</u>					
p *e(s) Sampled: 09/15/94	Da	Date Due: 09/20/94 BTEX 09/29/94 OTHERS					
lient Project I.D. MADISON	•	Time(s): 09/23/94 W 09/29/94 S Rush STANDARD					
Client: Engineering Science,	Inc. Ship	ping Charges N/A					
Address: 1700 Broadway	E	.A. Cooler # <u>136</u>					
Denver, CO 80290	Airbill #	FedEx 9581892983					
Contact: Mait Swanson		Custody Seal Intact?					
		Cooler \underline{x} Bottles \underline{X}					
Client P.O. 722450.09020		COC Present Sample Tags Present?					
Phone # <u>308-831-8100</u> Fax # <u>308</u>	<u>-831-8208</u>	Sample Tags Listed? Your Sample(s) Sealed?					
Special Invoicing/Billing Special Instructions							
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Lab Client	Analysis						
Lab Client [D# ID#	Analysis	Mtx Btl Loc					
Cab Client ID # ID# (94605A/B HP-CPT-3	Analysis BTEX,TMB	Mtx Btl Loc W 40V 2					
Lab Client ID # ID# K94605A/B HP-CPT-3 K94606A/B HP-CPT-11	Analysis BTEX,TMB	Mtx Btl Loc W 40V 2 W 40V 2					
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Lab	Client					
ID #	ID#	Analysis	Mtx	Btl	Loc	
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X94605C/D	HP-CPT-3	TVH	W	1LA	C2	
X94606C/D	HP-CPT-11	***	W	1LA	<u>C2</u>	
X94607C/D	WANG-CPT18-4.5	***	S	2WM	C2	- 41
X94608C/D	CPT-17S	11	W	1LA	C2	
X94609C/D	CPT-17D	11	W	1LA	C2	
X94610C/D	WANG-CPT8-7.5	11	S	2WM	C2	
X94611C/D	CPT-18S	11	W	1LA	C2	
X94612C/D	WANG-CPT2-7	11	S	2WM	C2	
X94613C/D	CPT-15S	11	W	1LA	C2	
X94614C/D	WANG-CPT-11-6.5	tv	S	2WM	C2	
X94615C/D	CPT-4D	11	W	1LA	C2	
X94616C/D	FIELD BLANK	11	W	1LA	C2	
X94617A	TRIP BLANK	11	W	1LA	C2	
X94605J	HP-CPT-3	ТЕН	W	1LA	C2	
X94606J	HP-CPT-11	11	W	1LA	C2	
X94609J	CPT-17D		W	1LA	<u>C2</u>	
X94613J	CPT-15S	11	W	1LA	C2	
X94614J	WANG-CPT-11-6.5	11	S	2WM	C2	
X94615J	CPT-4D	10	W	1LA	C2	
X94605EFG	HP-CPT-3	METHANE	W	1LA	C2	<u>.</u>
X94606EFG	HP-CPT-11	10	W	1LA	C2	
X94609EFG	CPT-17D	11	W	1LA	C2	
X94611EFG	CPT-18S	**	W	1LA	C2	
X94613EFG	CPT-15S	11	W	1.LA	C2	
X94614EFG	WANG-CPT-11-6.5	**	s	2WM	C2	
X94615EFG	CPT-4D	11	W	1LA	C2	
X94605K	HP-CPT-3 DISSOL	VED ORGANIC CARBON	W	1LA	C2	OUT
X94605I	HP-CPT-3	ALKALINITY	W	1LA	C2	
X94606I	HP-CPT-11	11	W	1LA	C2	
X94609I	CPT-17D	11	W	1LA	C2	
X94613I	CPT-15S	11	W	1LA	C2	
X94615I	CPT-4D	11	W	1LA	C2	
X94605H		, NITRITE, SULFATE, CHLORIDE	W	1LA	C2	_
Х94606Н	HP-CPT-11	11	W	1LA	C2	
			••			

Page 2 of 3 Page(s)

D #	ID#	Analysis	Mtx	Btl	Loc	
<u> 1609H</u>	CPT-17D		W	1LA	C2	
94611H	CPT-18S		W	1LA	C2	
(94613H	CPT-15S	tt .	w	1LA	C2	
(94615H	CPT-4D	11	W	1LA	C2	
94607H	WANG-CPT18-4.5	TOTAL ORGANIC CARBON	S	2WM	C2	OUT
(94612H	WANG-CPT2-7		s	2WM	C2	OUT

Page 3 of 3 Pages
Project # 94-3542

CHAIN OF CUSTODY NECORD / ANALYTICAL SERVICES REQUEST

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		, 303-831-	MATRIX	()))))	Water - Dinking/Disc (circle) Solid (circle) Sludge/Slurry (circle) Oil/Organic Liquid (c	Χ	,×	X		X	7	~	×	Davoos all aff	X X JICA O	Received by (Signature)	Received by (Signature)
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Comments:

(Additional comments on back)
Custodian Signature/Date:

13. COC signed w/ date/time:

12. Multi-phase sample(s) present:

Man 9/18/79

EVERGREEN ANALYTICAL, INC. 4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

BTEX Data Report

Client Sample Number	: HP-CPT-3	Client Project No.	: Madison Ang
Lab Sample Number	: X94605	Lab Project No.	: 94-3542
Date Sampled	: 9/15/94	Dilution Factor	: 1.00
Date Received	: 9/15/94	Method	: 602
Date Extracted/Prepared	: 9/18/94	Matrix	: Water
Date Analyzed	: 9/19/94	Lab File No.	: BX2091814
		Method Blank No.	: MB091894

		Sample	
Compound Name	Cas Number	Concentration	MDL
		ug/L	ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylene (m/p + o)	1330-20-7	U	0.4
1,3,5-trimethylbenzene	108-67-8	U	0.4
1,2,4-trimethylbenzene	95-63-6	U	0.4
1,2,3-trimethylbenzene	526-73-8	U	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 91%
QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

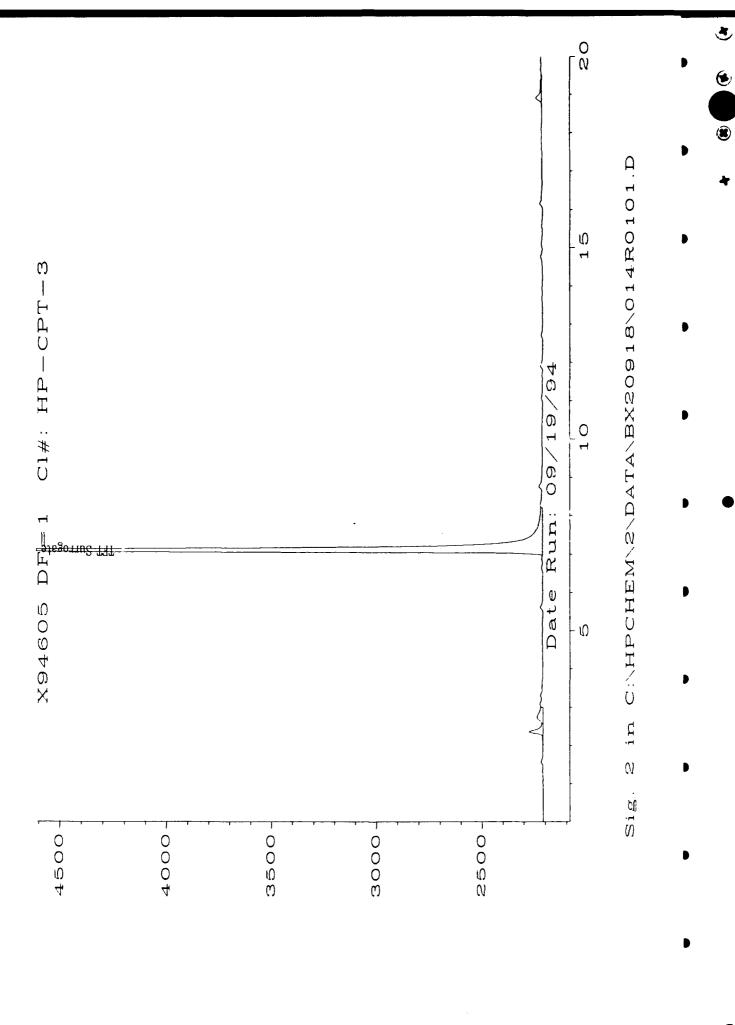
B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

Apelyst

Approved



EVERGREEN ANALYTICAL, INC. 4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

BTEX Data Report

Client Sample Number	: HP-CPT-11	Client Project No.	: Madison Ang
Lab Sample Number	: X94606	Lab Project No.	: 94-3542
Date Sampled	: 9/15/94	Dilution Factor	: 1.00
Date Received	: 9/15/94	Method	: 602
Date Extracted/Prepared	: 9/18/94	Matrix	: Water
Date Analyzed	: 9/19/94	Lab File No.	: BX2091815
·		Method Blank No.	: MB091894

		Method Blank Mo	i. : IVIBU91894
Compound Name	Cas Number	Sample Concentration ug/L	MDL ug/L
Benzene	71-43-2	13	0.4
Toluene	108-88-3	5.4 B	0.4
Ethyl Benzene	100-41-4	•	
Total Xylene (m/p + o)	1330-20-7	•	•
1,3,5-trimethylbenzene	108-67-8	•	•
1,2,4-trimethylbenzene	95-63-6	•	*

Note: Total Xylene consist of three isomers, two of which co-elute.

526-73-8

The Xylene MDL is for a single peak.

 \bullet = See BX2092008 for noted values, df = 20, 09/20/94.

Surrogate Recovery:

1,2,3-trimethylbenzene

a,a,a,-Trifluorotoluene : 123% Co-eluting peaks.

QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

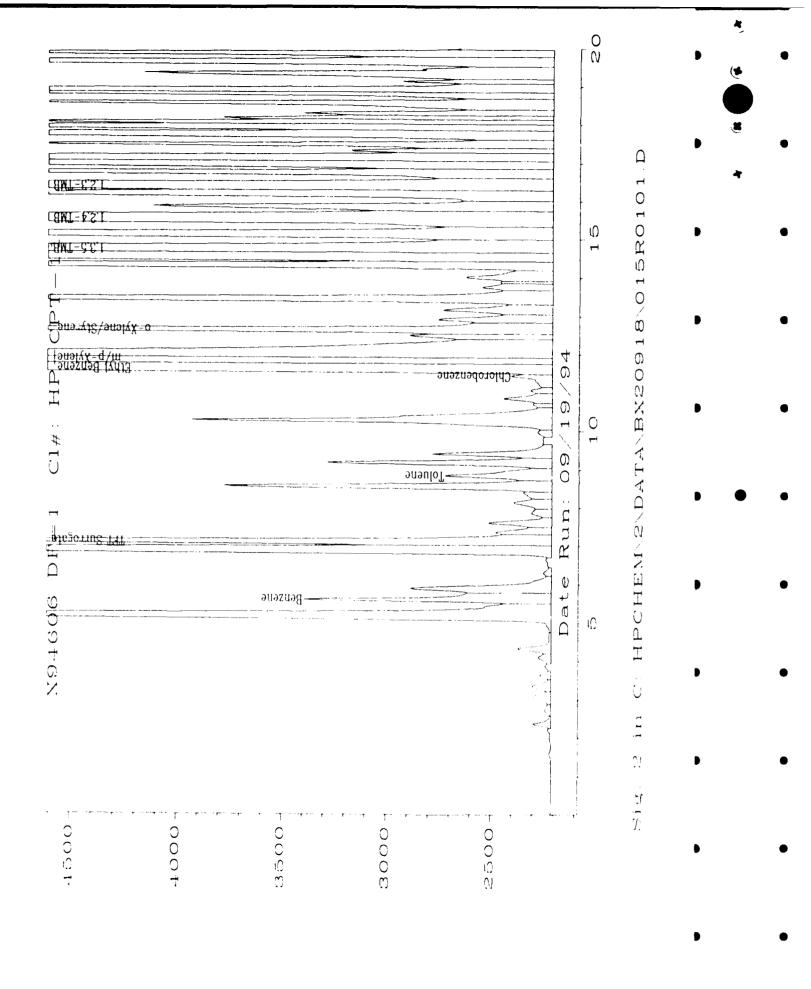
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

Approved/



EVERGREEN ANALYTICAL, INC. 4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

BTEX Data Report

Client Sample Number	: HP-CPT-11	Client Project No.	: Madison Ang
Lab Sample Number	: X94606	Lab Project No.	: 94-3542
Date Sampled	: 9/15/94	Dilution Factor	: 20.00
Date Received	: 9/15/94	Method	: 602
Date Extracted/Prepared	: 9/20/94	Matrix	: Water
Date Analyzed	: 9/20/ 94	Lab File No.	: BX2092008
		Method Blank No.	: MB092094

		Sample	
Compound Name	Cas Number	Concentration	MDL
		ug/L	ug/L
Benzene	71-43-2	•	*
Toluene	108-88-3	•	•
Ethyl Benzene	100-41-4	420	8
Total Xylene (m/p + o)	1330-20-7	1700	8
1,3,5-trimethylbenzene	108-67-8	270	8
1,2,4-trimethylbenzene	95-63-6	720	8
1,2,3-trimethylbenzene	526-73-8	340	8

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

* = See BX2091815 for noted values, df = 1, 09/19/94.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 107% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

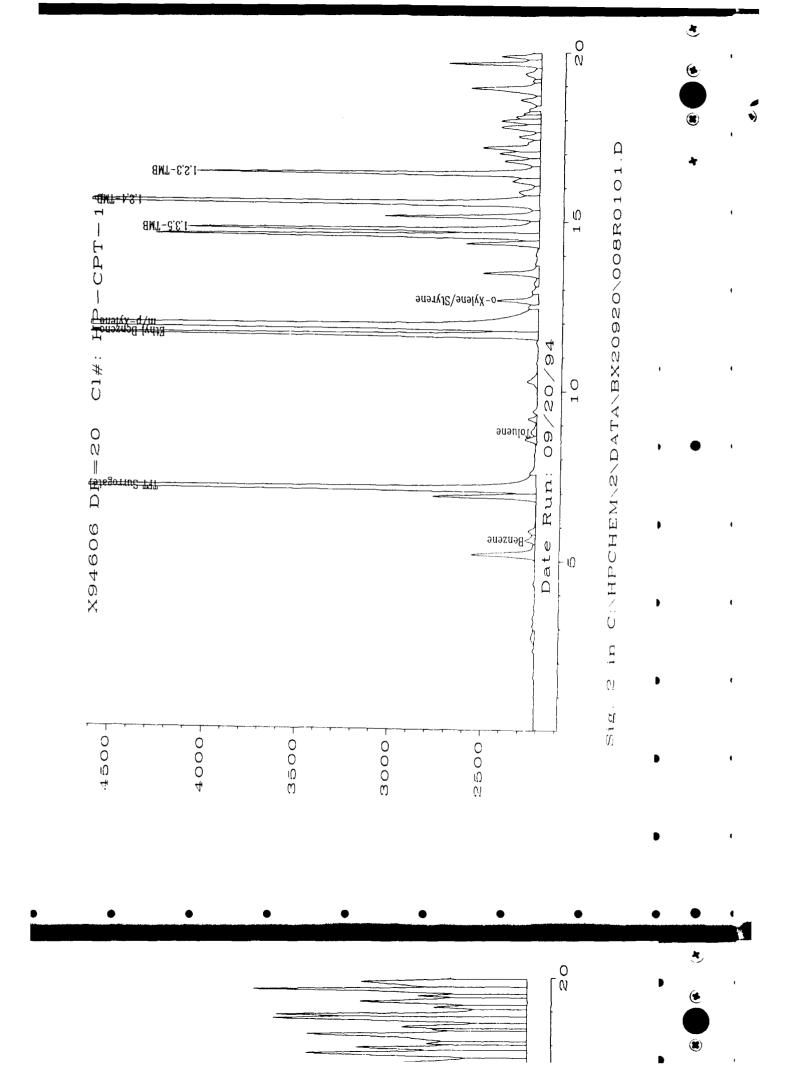
B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

Approved

Analyst



BTEX Data Report

Client Sample Number	: WANG-CPT18-4.5	Client Project No.	: Madison Ang
Lab Sample Number	: X94607	Lab Project No.	: 94-3542
Date Sampled	: 9/15/94	Dilution Factor	: 1.00
Date Received	: 9/15/94	Method	: 8020
Date Extracted/Prepared	: 9/20/94	Matrix	: Soil
Date Analyzed	: 9/21/94	Lab File No.	: BX2092013
Methanol Extract?	: No	Method Blank No.	: MB092094

		Sam	ple	
Compound Name	Cas Number	Concentration * *		PQL
		ug/l	(g	ug/kg
Benzene	71-43-2		U	5.3
Toluene	· 78-38-3	0.7	ВЈ	5.3
Ethyl Benzene	100-41-4		U	5.3
Total Xylene (m/p + o)	1330-20-7	0.5	BJ	5.3
1,3,5-trimethylbenzene	108-67-8		U	5.3
1,2,4-trimethylbenzene	95-63-6		U	5.3
1,2,3-trimethylbenzene	526-73-8		U	5.3

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 87%
QC Reporting Limits : 55%-127%

QUALIFIERS:

** = All sample results & PQLs are reported on a dry weight basis.

E = Extrapolated value

U = Compound analyzed for, but not detected.

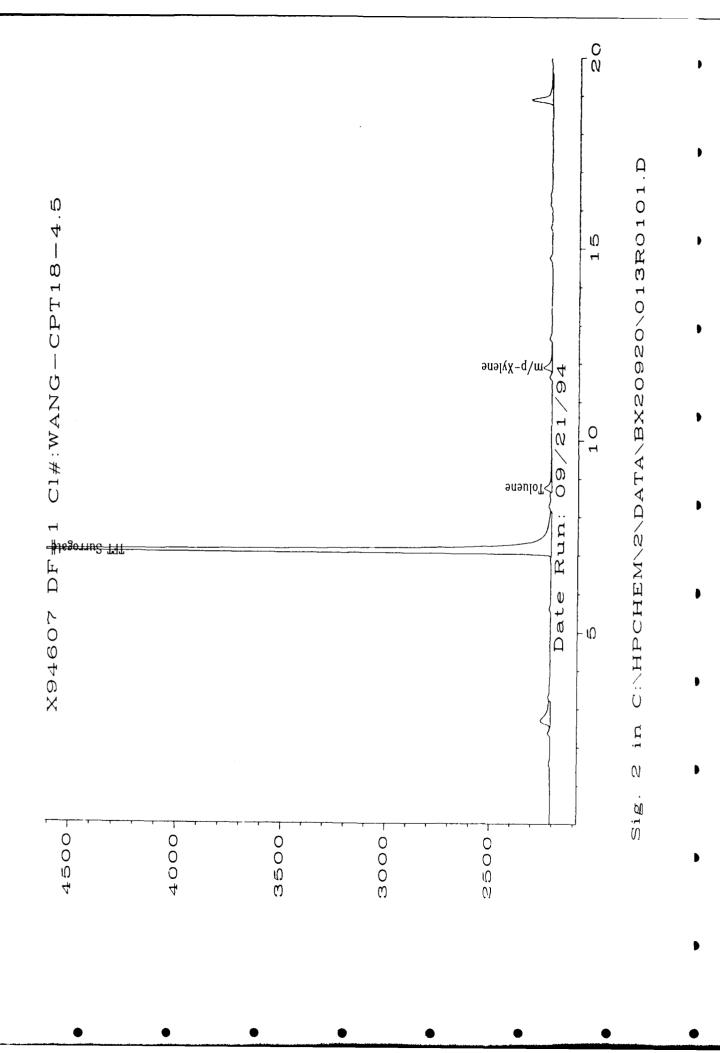
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



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BTEX Data Report

Client Sample Number	: CPT-17S	Client Project No.	: Madison Ang
Lab Sample Number	: X94608	Lab Project No.	: 94-3542
Date Sampled	: 9/15/94	Dilution Factor	: 10.00
Date Received	: 9/15/94	Method	: 602
Date Extracted/Prepared	: 9/18/94	Matrix	: Water
Date Analyzed	: 9/19/94	Lab File No.	: BX2091816
•		Method Blank No.	: MB091894

	Sample			
Compound Name	Cas Number	Concentration	MDL ug/L	
•		ug/L		
Benzene	71-43-2	*	*	
Toluene	108-88-3	30 B	4	
Ethyl Benzene	100-41-4	780	4	
Total Xylene { m/p + o }	1330-20-7	1500	4	
1,3,5-trimethylbenzene	108-67-8	84	4	
1,2,4-trimethylbenzene	95-63-6	350	4	
1,2,3-trimethylbenzene	526-73-8	230	4	

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

* = See BX2092009 for noted values, df = 500, 09/22/94.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 123% Co-eluting peaks.

QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

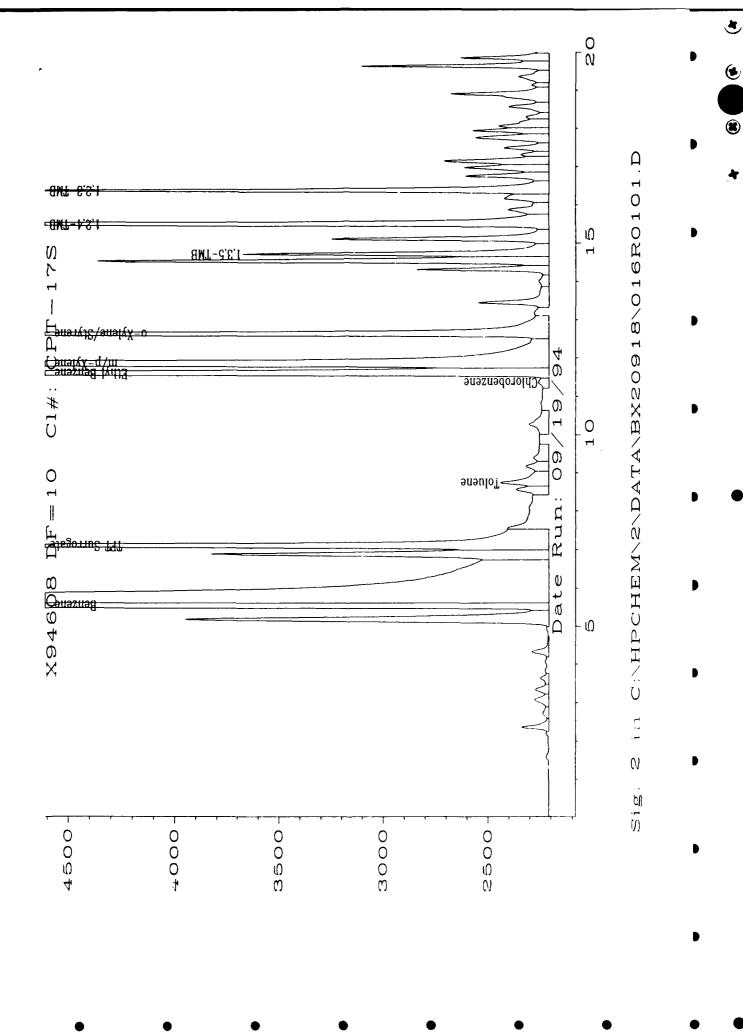
B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

Approved

Analyst



BTEX Data Report

Client Sample Number	: CPT-17S	Client Project No.	: Madison Ang
Lab Sample Number	: X94608	Lab Project No.	: 94-3542
Date Sampled	: 9/15/94	Dilution Factor	: 500.00
Date Received	: 9/15/94	Method	: 602
Date Extracted/Prepared	: 9/22/94	Matrix	: Water
Date Analyzed	: 9/22/94	Lab File No.	: BX2092209
		Method Blank No.	: MB092294

		Sample	-,
Compound Name	Cas Number	Concentration	MDL
		ug/L	ug/L
Benzene	71-43-2	26000	200
Toluene	108-88-3	•	*
Ethyl Benzene	100-41-4	•	•
Total Xylene (m/p + o)	1330-20-7	•	•
1,3,5-trimethylbenzene	108-67-8	•	•
1,2,4-trimethylbenzene	95-63-6	•	•
1,2,3-trimethylbenzene	526-73-8	•	*

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

* = See BX2091816 for noted values, df = 10, 09/19/94.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 89% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

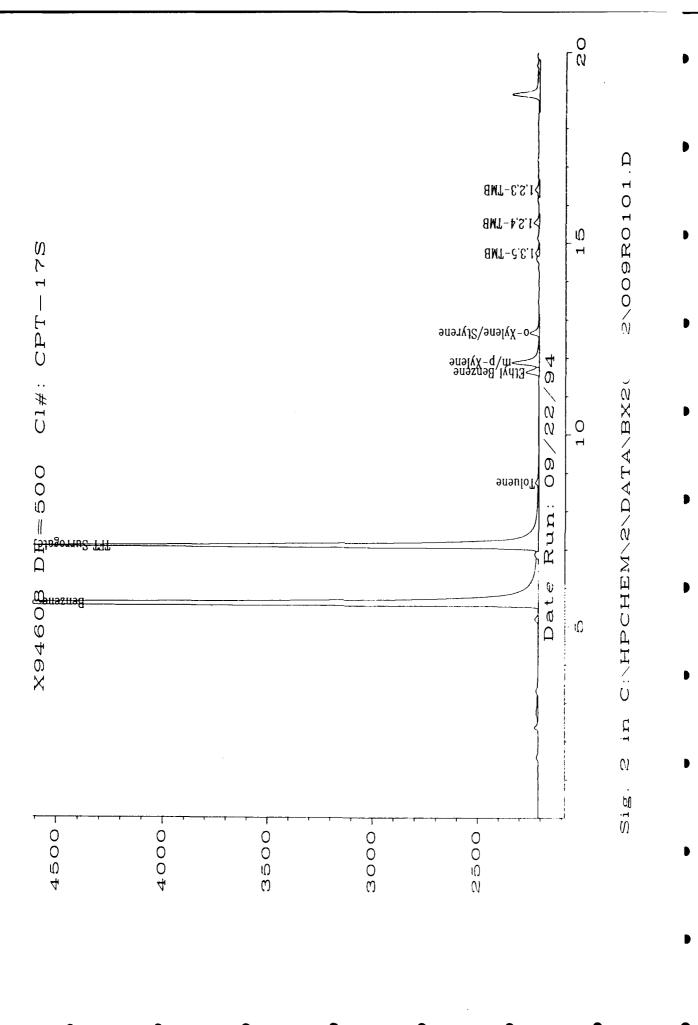
B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

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Analyst



BTEX Data Report

Client Sample Number	: CPT-17D	Client Project No.	: Madison Ang
Lab Sample Number	: X94609	Lab Project No.	: 94-3542
Date Sampled	: 9/15/94	Dilution Factor	: 10.00
Date Received	: 9/15/94	Method	: 602
Date Extracted/Prepared	: 9/18/94	Matrix	: Water
Date Analyzed	: 9/19/94	Lab File No.	: BX2091817
		Method Blank No.	: MB091894

Compound Name	Cas Number	Concentration	MDL
		ug/L	ug/L
Benzene	71-43-2	•	•
Toluene	108-88-3	5 B	4
Ethyl Benzene	100-41-4	360	4
Total Xylene (m/p + o)	1330-20-7	1000	4
1,3,5-trimethylbenzene	108-67-8	140	4
1,2,4-trimethylbenzene	95-63-6	570	4
1,2,3-trimethylbenzene	526-73-8	360	4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 100% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyze 1 for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

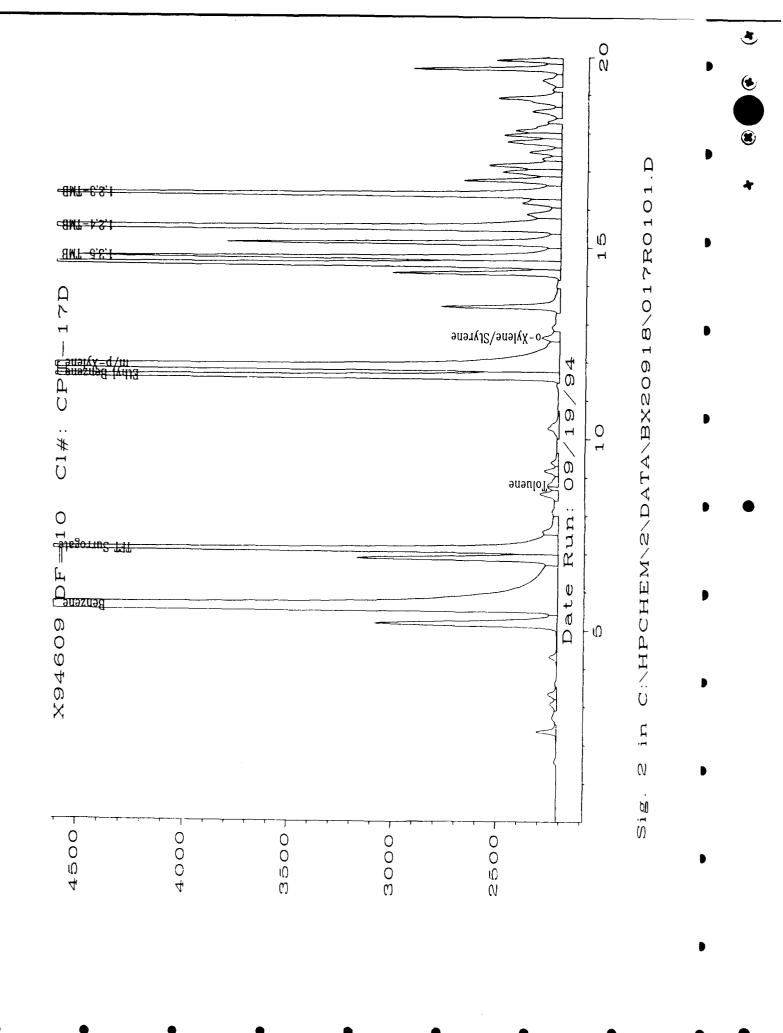
MDL = Method Detection Limit.

NA = Not available.

Analyst

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^{*} = See BX2091817 for noted values, df = 50, 09/20/94.



BTEX Data Report

Sample

Client Sample Number	: CPT-17D	Client Project No.	: Madison Ang
Lab Sample Number	: X94609	Lab Project No.	: 94-3542
Date Sampled	: 9/15/94	Dilution Factor	: 50.00
Date Received	: 9/15/94	Method	: 602
Date Extracted/Prepared	: 9/20/94	Matrix	: Water
Date Analyzed	: 9/20/94	Lab File No.	: BX2092010
		Method Blank No.	: MB092094

Compound Name	Cas Number	Concentration ug/L	MDL ug/L
Benzene	71-43-2	3800	20
Toluene	108-88-3	•	*
Ethyl Benzene	100-41-4	•	+
Total Xylene (m/p + o)	1330-20-7	*	•
1,3,5-trimethylbenzene	108-67-8	•	•
1,2,4-trimethylbenzene	95-63-6	•	
1,2,3-trimethylbenzene	526-73-8	•	•

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

* = See BX2091817 for noted values, df = 10, 09/19/94.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 107% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

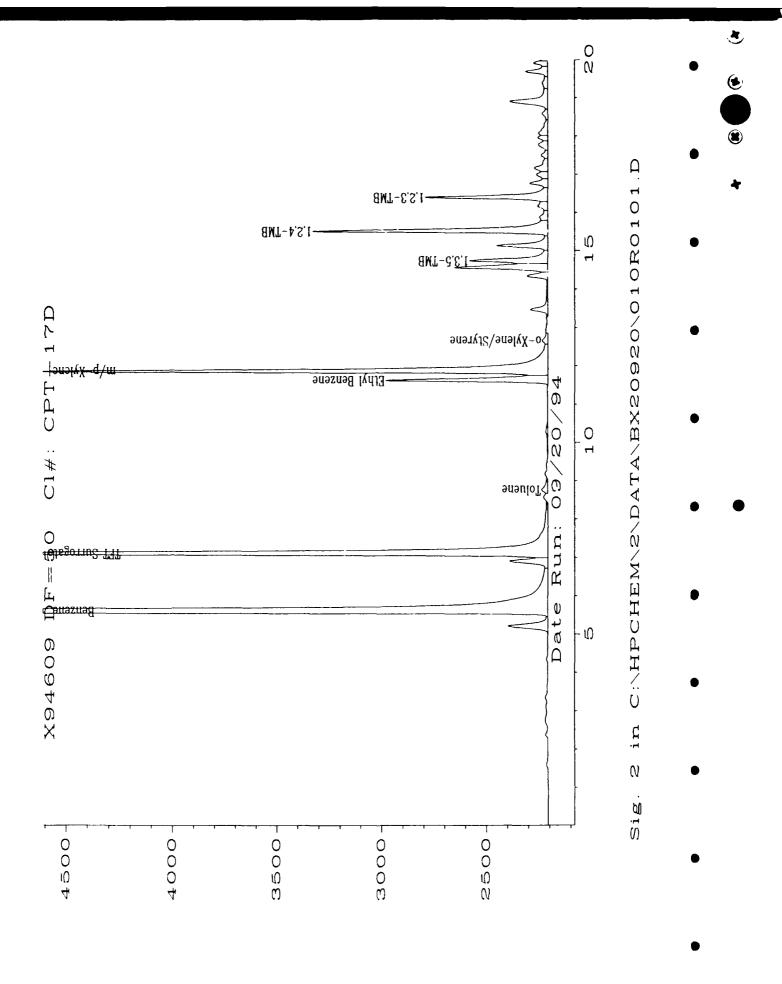
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

Analyst



BTEX Data Report

Client Sample Number	: WANG-CPT8-7.5	Client Project No.	: Madison Ang
Lab Sample Number	: X94610	Lab Project No.	: 94-3542
Date Sampled	: 9/15/94	Dilution Factor	: 125.00
Date Received	: 9/15/94	Method	: 8020
Date Extracted/Prepared	: 9/20/94	Matrix	: Soil
Date Analyzed	: 9/21/94	Lab File No.	: BX2092014
Methanol Extract?	: Yes	Method Blank No.	: MEB092094

	Sample			
Compound Name	Cas Number	Concentration**	PQL	
		ug/kg	ug/kg	
Benzene	71-43-2	760	550	
Toluene	108-88-3	4500 B	550	
Ethyl Benzene	100-41-4	19000	550	
Total Xylene (m/p + o)	1330-20-7	•	•	

1,3,5-trimethylbenzene	108-67-8	•	•	
1,2,4-trimethylbenzene	95-63-6	•	•	
1,2,3-trimethylbenzene	526-73-8	•	•	

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = See BX2092211 for noted values, df = 1250, 09/22/94.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 114%
QC Reporting Limits : 55%-127%

QUALIFIERS:

** = All sample results & PQLs are reported on a dry weight basis.

E = Extrapolated value

U = Compound analyzed for, but not detected.

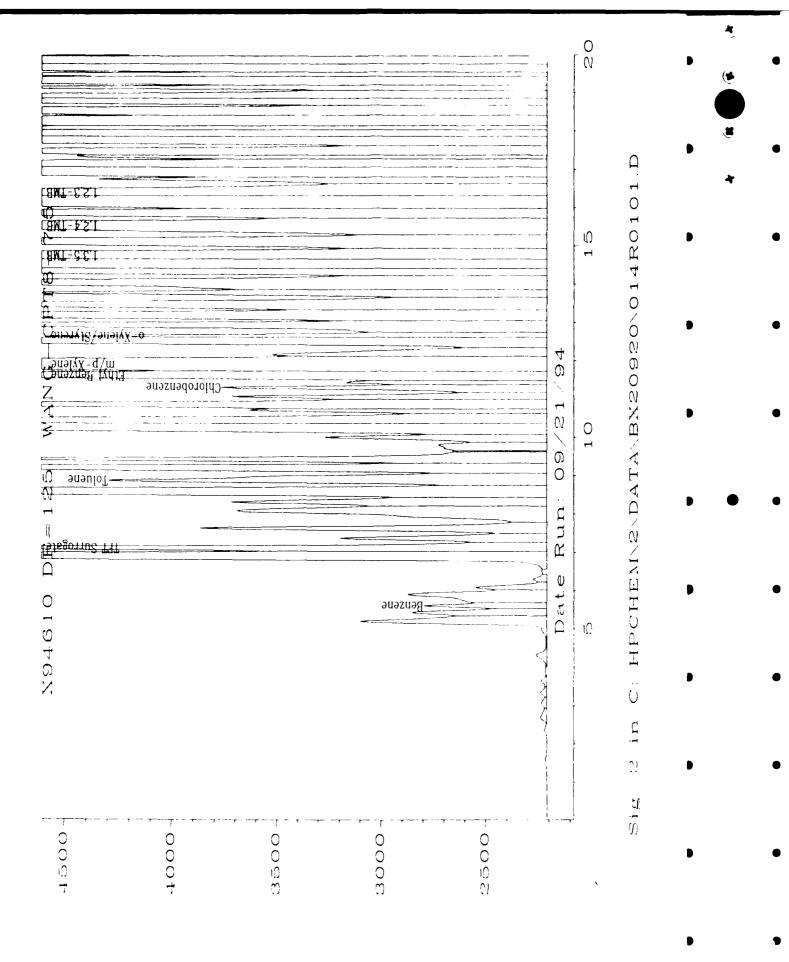
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



BTEX Data Report

Client Sample Number	: WANG-CPT8-7.5	Client Project No.	: Madison Ang
Lab Sample Number	: X94610	Lab Project No.	: 94-3542
Date Sampled	: 9/15/94	Dilution Factor	: 1250.00
Date Received	: 9/15/94	Method	: 8020
Date Extracted/Prepared	: 9/22/94	Matrix	: Soil
Date Analyzed	: 9/22/94	Lab File No.	: BX2092211
Methanol Extract?	: Yes	Method Blank No.	: MEB092094

Compound Name	Cas Number	Sample Concentration** ug/kg	PQL ug/kg
Benzene	71-43-2	•	•
Toluene	108-88-3	•	•
Ethyl Benzene	100-41-4	•	•
Total Xylene (m/p + o)	1330-20-7	89000 В	5500
1,3,5-trimethylbenzene	108-67-8	48000	5500
1,2,4-trimethylbenzene	95-63-6	85000	5500
1,2,3-trimethylbenzene	526-73-8	51000	5500

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

• = See BX2092014 for noted values, df = 125, 09/21/94.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

100%

QC Reporting Limits

: 55%-127%

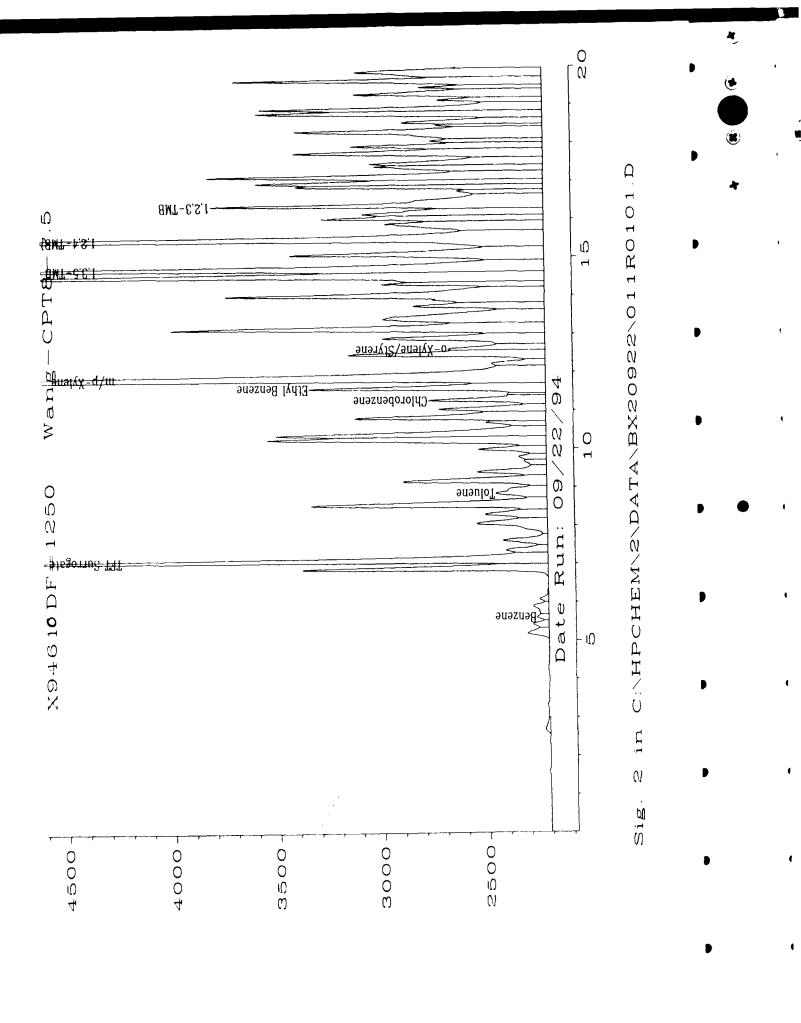
QUALIFIERS:

- ** = All sample results & PQLs are reported on a dry weight basis.
- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
- PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Approved

Analyst



BTEX Data Report

Client Sample Number	: CPT-18S	Client Project No.	: Madison Ang
Lab Sample Number	: X94611	Lab Project No.	: 94-3542
Date Sampled	: 9/15/94	Dilution Factor	: 1.00
Date Received	: 9/15/94	Method	: 602
Date Extracted/Prepared	: 9/18/94	Matrix	: Water
Date Analyzed	: 9/19/94	Lab File No.	: BX2091819
		Method Blank No.	: MB091894

		Sample	
Compound Name	Cas Number	Concentration	MDL
		ug/L	ug/L
Benzene	71-43-2	83	0.4
Toluene	108-88-3	0.4 B	0.4
Ethyl Benzene	100-41-4	3.3	0.4
Total Xylene (m/p + o)	1330-20-7	9.9	0.4
1,3,5-trimethylbenzene	108-67-8	1.6	0.4
1,2,4-trimethylbenzene	95-63-€	4.6	0.4
1,2,3-trimethylbenzene	526-73-8	1.7	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 100% QC Reporting Limits : 77%-116%

QUALIFIERS:

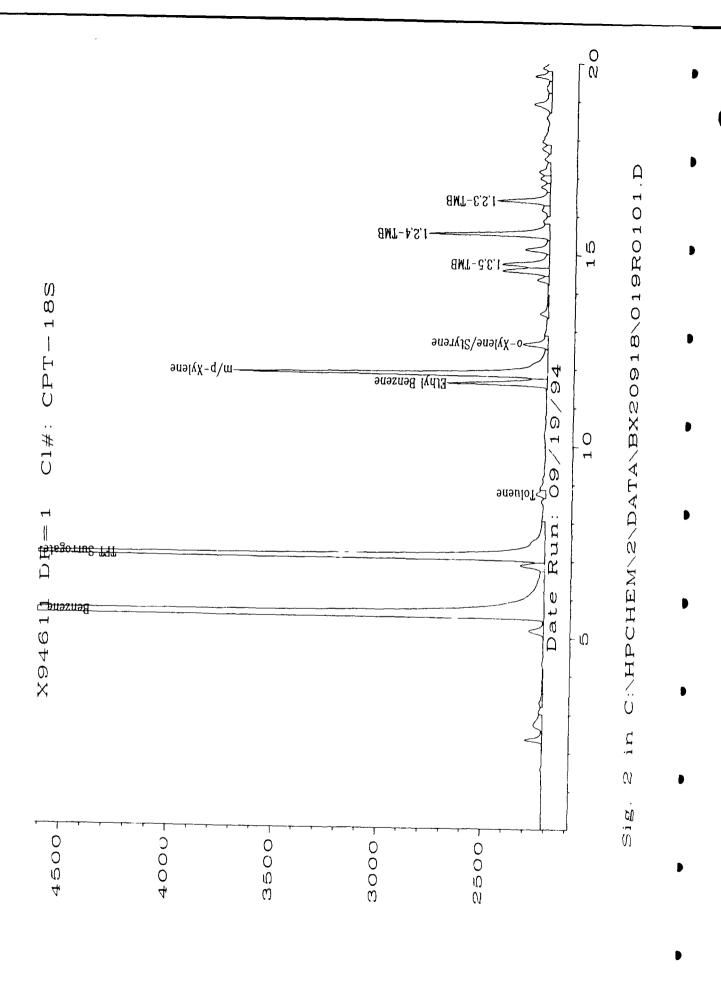
E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.



BTEX Data Report

Client Sample Number	: WANG-CPT2-7	Client Project No.	: Madison Ang
Lab Sample Number	: X94612	Lab Project No.	: 94-3542
Date Sampled	: 9/15/94	Dilution Factor	: 1.00
Date Received	: 9/15/94	Method	: 8020
Date Extracted/Prepared	: 9/22/94	Matrix	: Soil
Date Analyzed	: 9/22/94	Lab File No.	: BX2092210
Methanol Extract?	: No	Method Blank No.	: MB092294

		ple		
Compound Name	Cas Number	Concen	tration * *	PQL
		ug/l	(g	ug/kg
Benzene	71-43-2		U	4.7
Toluene	108-88-3	0.7	J	4.7
Ethyl Benzene	100-41-4		U	4.7
Total Xylene (m/p + o)	1330-20-7	1.0	J	4.7
1,3,5-trimethylbenzene	108-67-8		U	4.7
1,2,4-trimethylbenzene	95-63-6		U	4.7
1,2,3-trimethylbenzene	526-73-8		U	4.7

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

98%

QC Reporting Limits

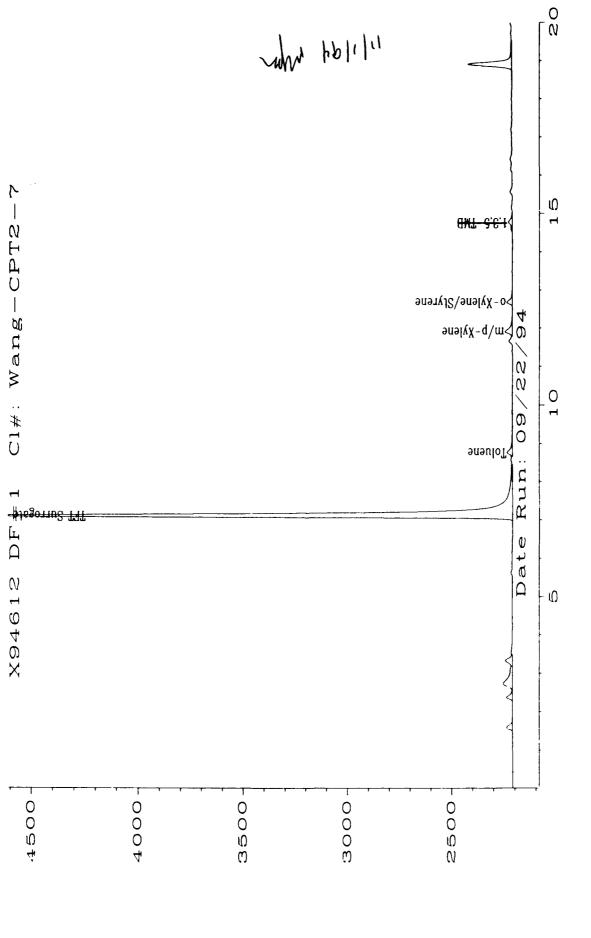
: 55%-127%

QUALIFIERS:

- ** = All sample results & PQLs are reported on a dry weight basis.
- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
- = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyet



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BTEX Data Report

Client Sample Number	: CPT-15S	Client Project No.	: Madison Ang
Lab Sample Number	: X94613	Lab Project No.	: 94-3542
Date Sampled	: 9/15/94	Dilution Factor	: 1.00
Date Received	: 9/15/94	Method	: 602
Date Extracted/Prepared	: 9/18/94	Matrix	: Water
Date Analyzed	: 9/19/94	Lab File No.	: BX2091820
		Method Blank No.	: MB091894

		Sample	
Compound Name	Cas Number	Concentration	MDL
		ug/L	ug/L
Benzene	71-43-2	14	0.4
Toluene	108-88-3	U	0.4
Ethyl Benzene	100-41-4	1,1	0.4
Total Xylene (m/p + o)	1330-20-7	3.5	0.4
1,3,5-trimethylbenzene	108-67-8	0.6	0.4
1,2,4-trimethylbenzene	95-63-6	1.4	0.4
1,2,3-trimethylbenzene	526-73-8	0.6	0.4

Note: Tctal Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 100%

QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

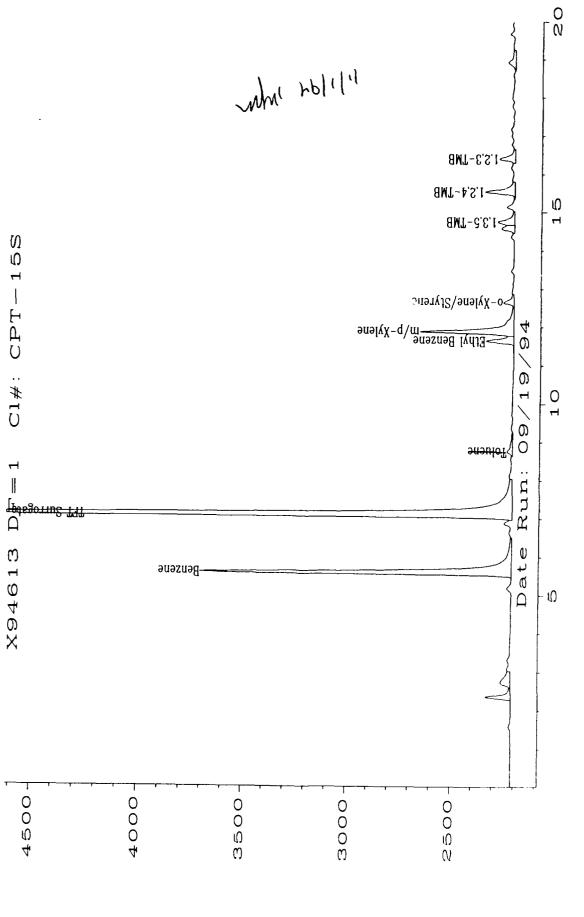
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

Analyst



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BTEX Data Report

Client Sample Number	: WANG-CPT-11-6.5	Client Project No.	: Madison Ang
Lab Sample Number	: X94614	Lab Project No.	: 94-3542
Date Sampled	: 9/15/94	Dilution Factor	: 125.00
Date Received	: 9/15/94	Method	: 8020
Date Extracted/Prepared	: 9/20/94	Matrix	: Soil
Date Analyzed	: 9/21/94	Lab File No.	: BX2092016
Mothanol Extract?	· Vac	Mothed Plank No.	· MERO92094

Compound Name	Cas Number	Sample Concentration * *	PQL
		ug/kg	ug/kg
Benzene	71-43-2	2300	580
Toluene	108-88-3	23000 В	580
Ethyl Benzene	100-41-4	1700	580
Total Xylene (m/p + o)	1330-20-7	22000 В	580

1,3,5-trimethylbenzene	108-67-8	*	*
1,2,4-trimethylbenzene	95-63-6	•	
1,2,3-trimethylbenzene	526-73-8	•	*

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = See BX2092212 for noted values, df = 1250, 09/22/94.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

208% Co-eluting peaks.

QC Reporting Limits

: 55%-127%

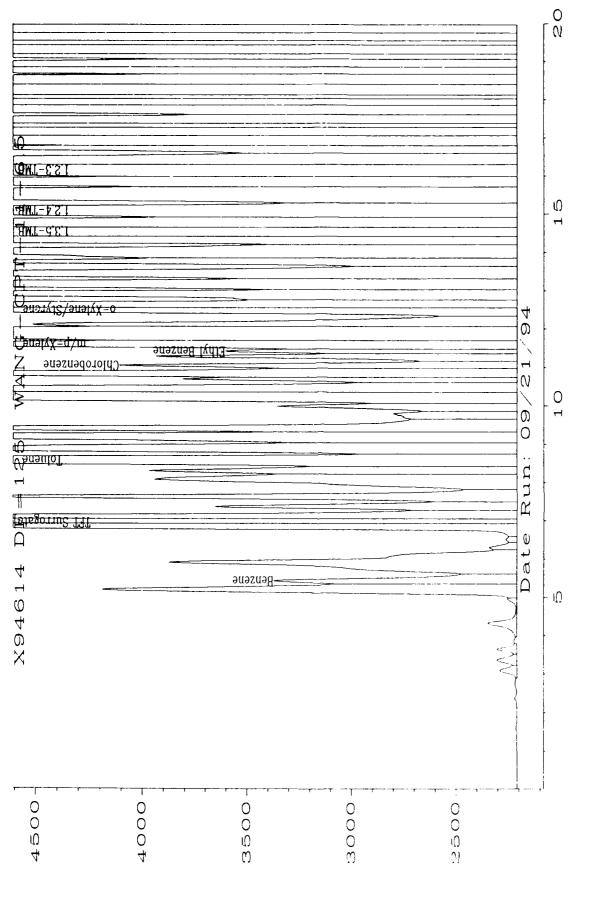
QUALIFIERS:

- ** = All sample results & PQLs are reported on a dry weight basis.
- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available

Analyst



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BTEX Data Report

Sample

Client Sample Number	: WANG-CPT-11-6.5	Client Project No.	: Madison Ang
Lab Sample Number	: X94614	Lab Project No.	: 94-3542
Date Sampled	: 9/15/94	Dilution Factor	: 1250.00
Date Received	: 9/15/94	Method	: 8020
Date Extracted/Prepared	: 9/22/94	Matrix	: Soil
Date Analyzed	: 9/22/94	Lab File No.	: BX2092212
Methanol Extract?	: Yes	Method Blank No.	: MEB092094

Compound Name	Cas Number	Concentration * * ug/kg	PQL ug/kg
Benzene	71-43-2	*	*
Toluene	108-88-3	•	•
Ethyl Benzene	100-41-4	•	•
Total Xylene (m/p + o)	1330-20-7	•	•

1,3,5-trimethylbenzene	108-67-8	74000	5800
1,2,4-trimethylbenzene	95-63-6	140000	5800
1,2,3-trimethylbenzene	526-73-8	84000	5800

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = See BX2092016 for noted values, df = 125, 09/21/94.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 100% QC Reporting Limits : 55%-127%

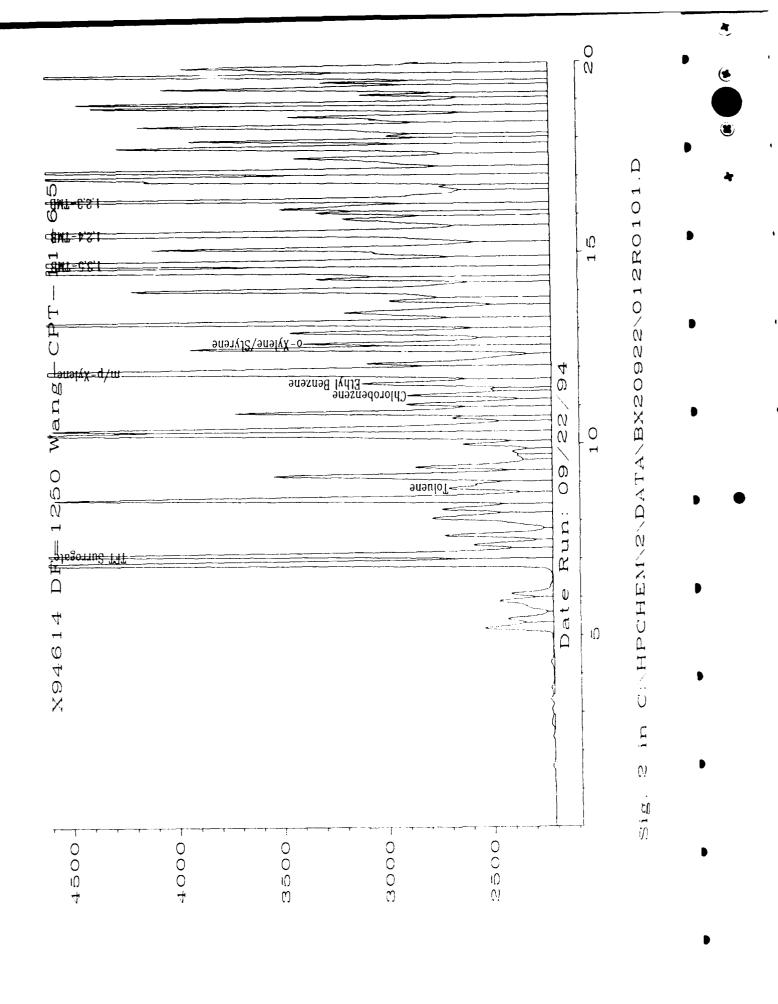
QUALIFIERS:

- ** = All sample results & PQLs are reported on a dry weight basis.
- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



BTEX Data Report

Client Sample Number	: CPT-4D	Client Project No.	: Madison Ang
Lab Sample Number	: X94615	Lab Project No.	: 94-3542
Date Sampled	: 9/15/94	Dilution Factor	: 1.00
Date Received	: 9/15/94	Method	: 602
Date Extracted/Prepared	: 9/18/94	Matrix	: Water
Date Analyzed	: 9/19/94	Lab File No.	: BX2091821
		Method Blank No.	: MB091894

	Sample			
Compound Name	Cas Number	Concentration	MDL	
	ug/Lu			
Benzene	71-43-2	5.2	0.4	
Toluene	108-88-3	0.7 B	0.4	
Ethyl Benzene	100-41-4	0.9	0.4	
Total Xylene (m/p + o)	1330-20-7	2.2	0.4	
1,3,5-trimethylbenzene	108-67-8	0.4	0.4	
1,2,4-trimethylbenzene	95-63-6	1.6	0.4	
1.2.3-trimethylbenzene	526-73-8	0.6	0.4	

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 101%
QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

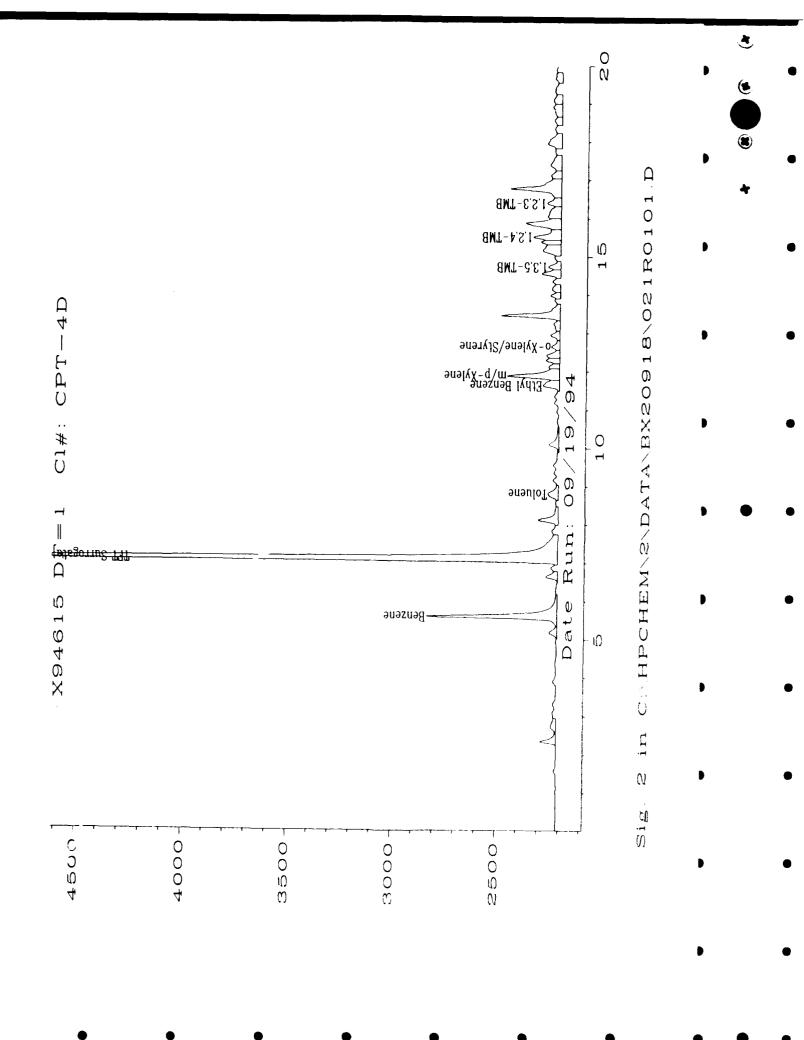
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

Analyst



BTEX Data Report

Client Sample Number	: Field Blank	Client Project No.	: Madison Ang
Lab Sample Number	: X94616	Lab Project No.	: 94-3542
Date Sampled	: 9/15/94	Dilution Factor	: 1.00
Date Received	: 9/15/94	Method	: 602
Date Extracted/Prepared	: 9/18/94	Matrix	: Water
Date Analyzed	: 9/19/94	Lab File No.	: BX2091822
		Method Blank No.	: MB091894

	Sample		
Compound Name	Cas Number	Concentration	MDL
•		ug/L	ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylene (m/p + o)	1330-20-7	U	0.4
1,3,5-trimethylbenzene	108-67-8	U	0.4
1,2,4-trimethylbenzene	95-63-6	U	0.4
1,2,3-trimethylbenzene	526-73-8	U	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 96% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

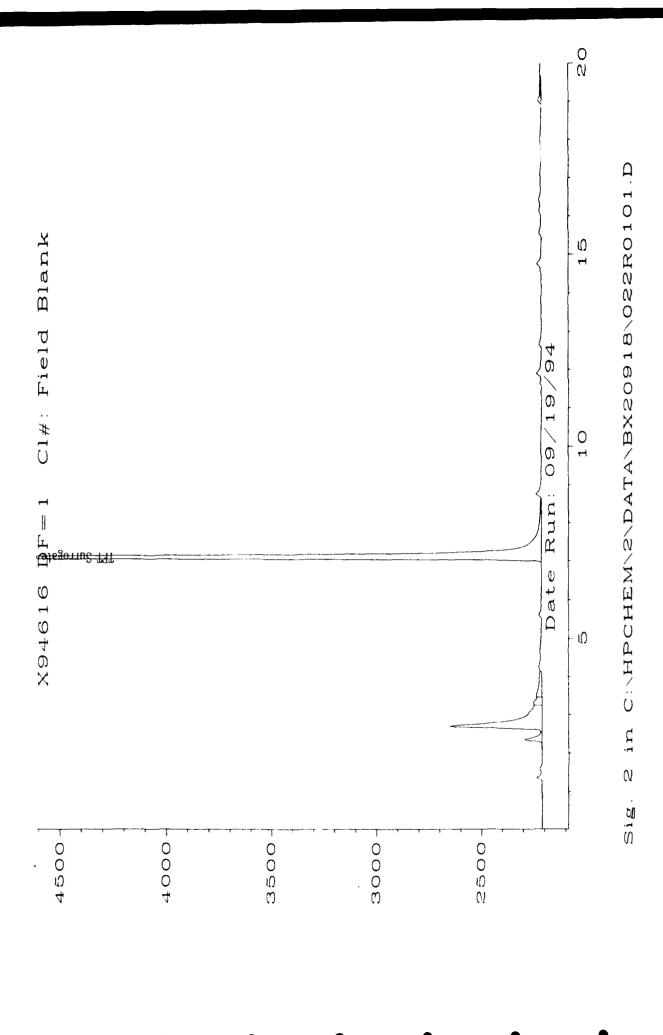
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

Analyst



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BTEX Data Report

Client Sample Number	: Trip Blank	Client Project No.	: Madison Ang
Lab Sample Number	: X94617	Lab Project No.	: 94-3542
Date Sampled	: 9/15/94	Dilution Factor	: 1.90
Date Received	: 9/15/94	Method	: 602
Date Extracted/Prepared	: 9/18/94	Matrix	: Water
Date Analyzed	: 9/19/94	Lab File No.	: BX2091823
		Method Blank No.	: MB091894

	Sample		
Compound Name	Cas Number	Concentration	MDL
		ug/L	ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylene (m/p + o)	1330-20-7	U	0.4
1,3,5-trimethylbenzene	108-67-8	U	0.4
1,2,4-trimethylbenzene	95-63-6	U	0.4
1,2,3-trimethylbenzene	526-73-8	0.5	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 81%
QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

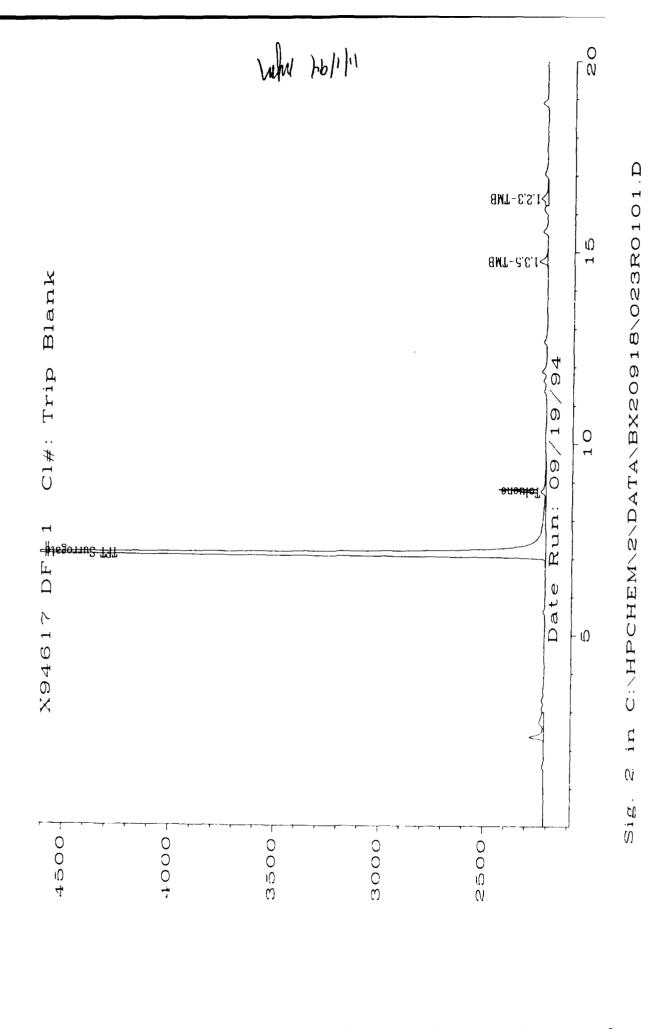
B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

Approved

Analyst



BTEX Data Report Method Blank Report

Method Blank Number Date Extracted/Prepared : MB091894 : 9/18/94

Client Project No. Lab Project No.

: Madison Ang : 94-3542

Date Analyzed

: 9/18/94

Dilution Factor Method Matrix

U

: 1.00 : 602

: Water

Lab File No.

: BX2091803

0.4

Compound Name	Cas Number	Sample Concentration ug/L	MDL ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	0.4	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylene (m/p + o)	1330-20-7	U	0.4
1,3,5-trimethylbenzene	108-67-8	U	0.4
1,2,4-trimethylbenzene	95-63-6	U	0.4

Note: Total Xylene consist of three isomers, two of which co-elute. The Xylene MDL is for a single peak.

526-73-8

Surrogate Recovery:

1,2,3-trimethylbenzene

a,a,a,-Trifluorotoluene 111% : 77%-116% **QC Reporting Limits**

QUALIFIERS:

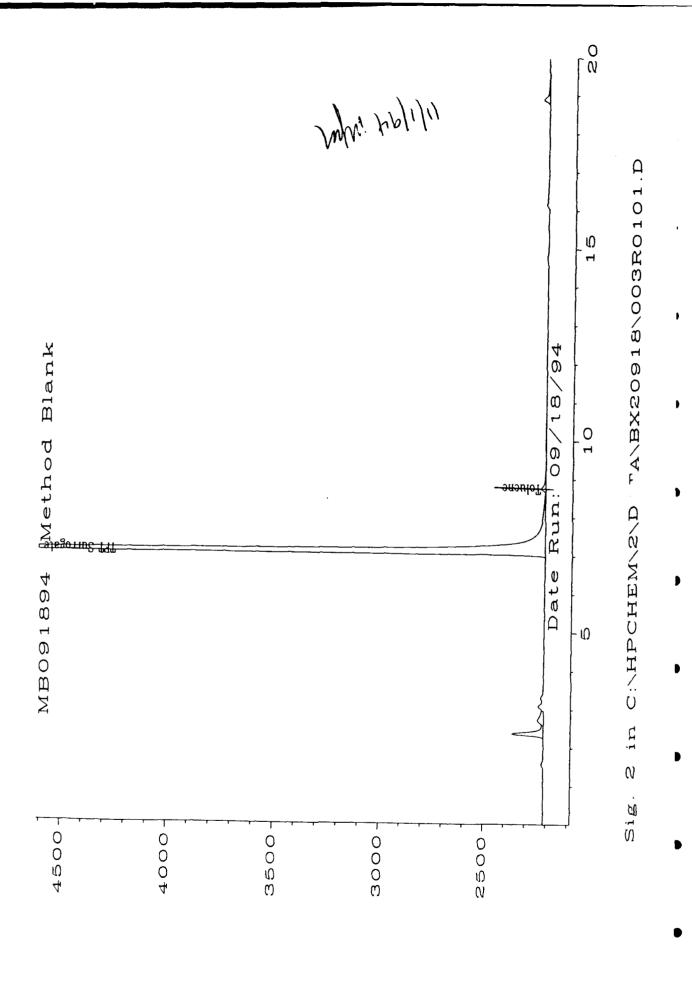
E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.



BTEX Data Report Method Blank Report

Method Blank Number

: MB092094

Client Project No.

: Madison Ang

Date Extracted/Prepared

: 9/20/94

Lab Project No.

: 94-3542

Date Analyzed

: 9/20/94

Dilution Factor Method

: 1.00

: 602

Matrix

: Water

Lab File No.

: BX2092003

	Sample			
Compound Name	Cas Number	Concentration	MDL	
		ug/L	ug/L	
Benzene	71-43-2	U	0.4	
Toluene	108-88-3	U	0.4	
Ethyl Benzene	100-41-4	υ	0.4	
Total Xylene (m/p + o)	1330-20-7	U	0.4	
1,3,5-trimethylbenzene	108-67-8	U	0.4	
1,2,4-trimethylbenzene	95-63-6	U	0.4	
1.2.3-trimethylbenzene	526-73-8	ti	0.4	

Note: Total Xylene consist of three isomers, two of which co-elute. The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

106%

QC Reporting Limits

: 77%-116%

QUALIFIERS:

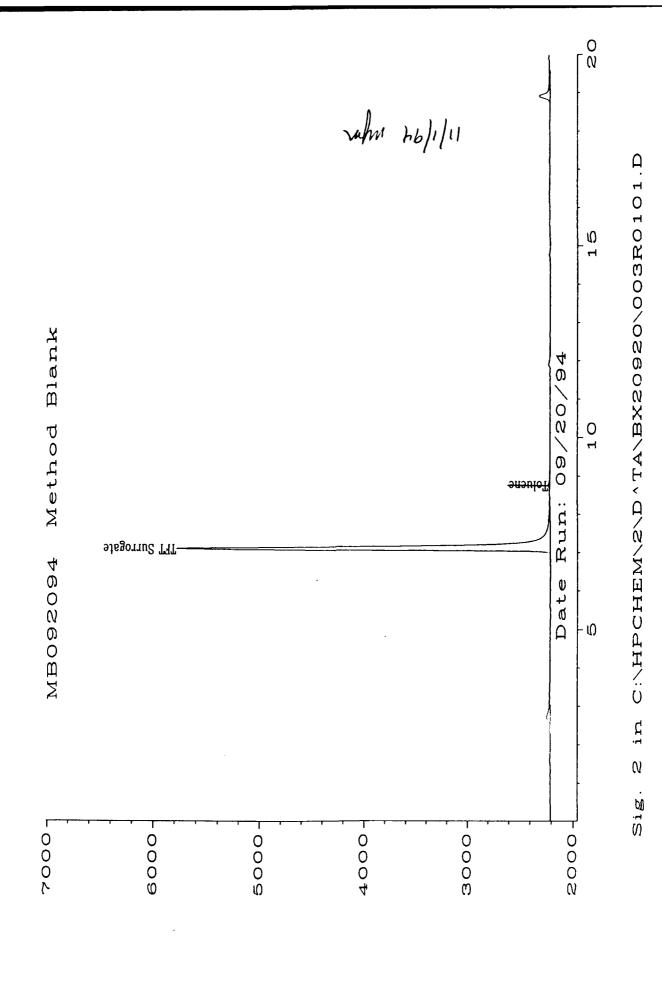
E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.



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BTEX Data Report Method Blank Report

Method Blank Number

: MEB092094

Client Project No.

: Madison Ang

Date Extracted/Prepared

: 9/20/94

Lab Project No.

: 94-3542

Date Analyzed

Dilution Factor

: 1.00

: 9/21/94

Method

: 8020

Matrix

Lab File No.

: Water

: BX2092018

Compound Name	Cas Number	Sample Concentration ug/L		PQL ug/L
Benzene	71-43-2		U	4
Toluene	108-88-3	0.5	J	4
Ethyl Benzene	100-41-4		U	4
Total Xylene (m/p + o)	1330-20-7	0.4	J	4
1,3,5-trimethylbenzene	108-67-8		U	4
1,2,4-trimethylbenzene	95-63-6		U	4
1,2,3-trimethylbenzene	526-73-8		U	4

Note: Total Xylene consist of three isomers, two of which co-elute. The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene QC Reporting Limits

92%

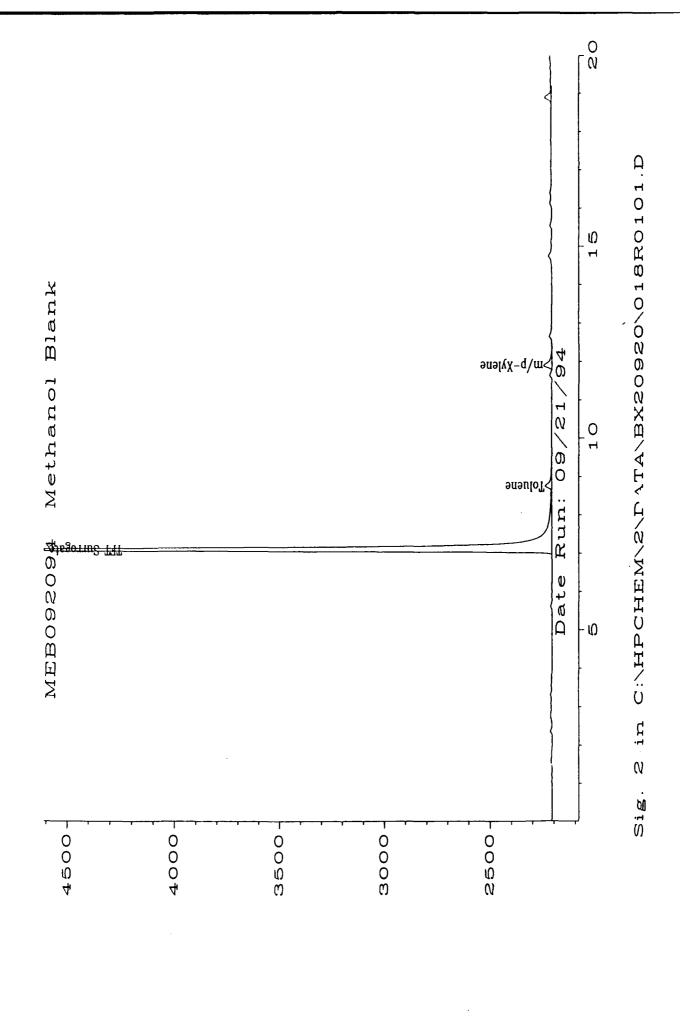
: 77%-116%

QUALIFIERS:

- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.



BTEX Data Report Method Blank Report

Method Blank Number Date Extracted/Prepared

: MB092294 : 9/22/94

Client Project No.

: Madison Ang : 94-3542

Date Analyzed

: 9/22/94

Lab Project No. Dilution Factor

: 1.00

Method Matrix

: 602 : Water

Lab File No.

: BX2092203

	Sample				
Compound Name	Cas Number	Concentration	MDL		
		ug/L	ug/L		
Benzene	71-43-2	U	0.4		
Toluene	108-88-3	U	0.4		
thyl Benzene	100-41-4	U	0.4		
Total Xylene (m/p + o)	1330-20-7	U	0.4		
1,3,5-trimethylbenzene	108-67-8	U	0.4		
1,2,4-trimethylbenzene	95-63-6	U	0.4		
1,2,3-trimethylbenzene	526-73-8	U	0.4		

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene **QC** Reporting Limits

109%

: 77%-116%

QUALIFIERS:

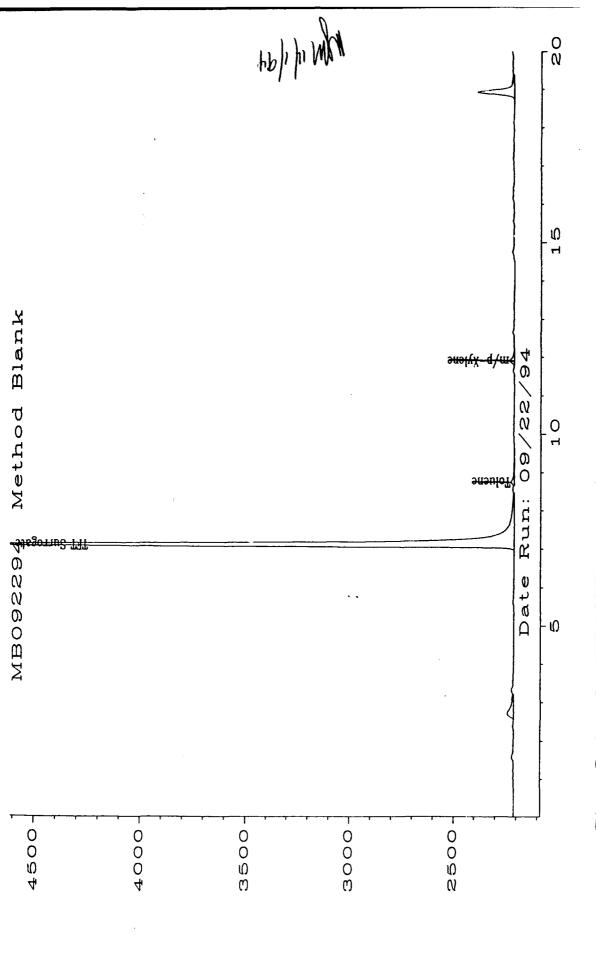
E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.



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BTEX Data Report Laboratory Control Sample (LCS)

LCS Number

: LCS091894

Client Project No.

: Madison Ang

Date Extracted/Prepared

: 9/18/94

Lab Project No.

: 94-3542

Date Analyzed

: 9/18/94

Dilution Factor

: 1.00

Method Matrix

: 8020

: Water

Lab File No.

: BX2091813

LCS

	LOS					
Compound Name	Cas Number	Concentration	QC Limit			
		ug/L	ug/L			
Benzene	71-43-2	35	29-47			
Toluene	108-88-3	36	30-42			
Ethyl Benzene	100-41-4	39	31-43			
m/p-Xylene	NA	39	31-42			
o-Xylene	95-47-6	38	31-42			
1,3,5-trimethylbenzene	108-67-8	37	NA			
1,2,4-trimethylbenzene	95-63-6	37	NA			
1,2,3-trimethylbenzene	526-73-8	42	NA			

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

99%

QC Reporting Limits

: 77%-116%

QUALIFIERS:

E = Extrapolated value

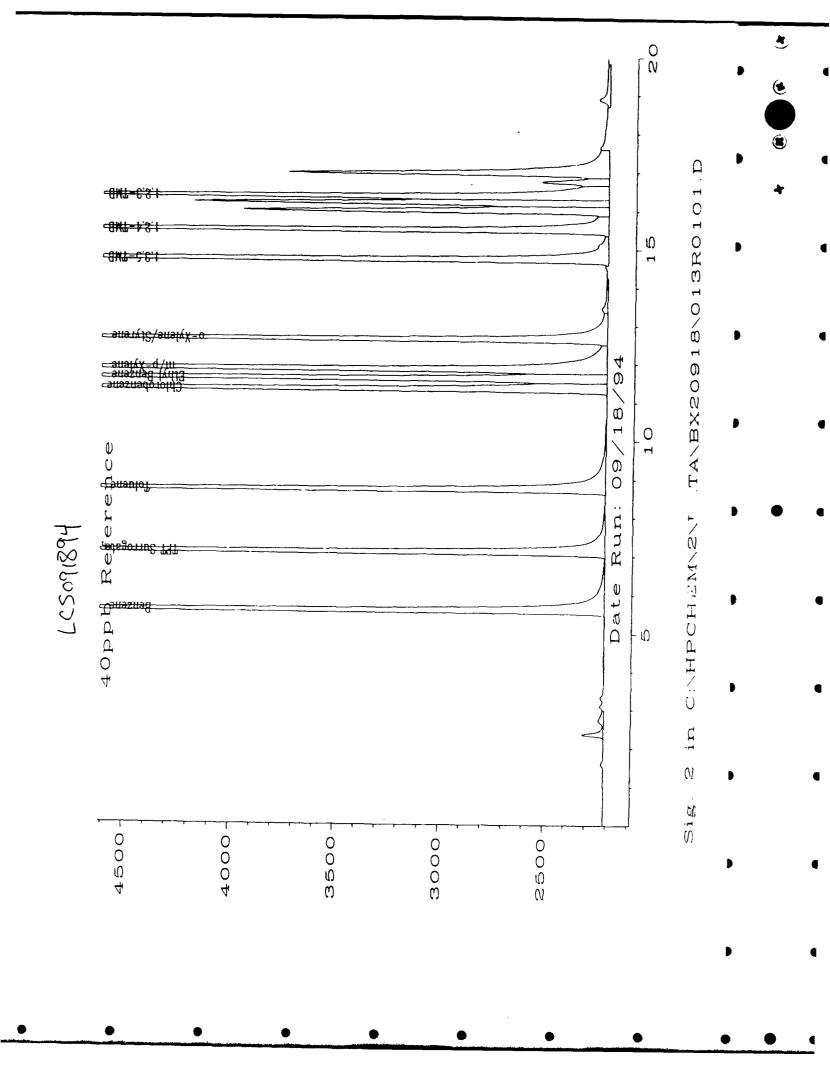
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.



BTEX Data Report Laboratory Control Sample (LCS)

LCS Number : LCS092194 : 9/21/94 Date Extracted/Prepared Date Analyzed : 9/21/94

Client Project No. Lab Project No.

: Madison Ang

Dilution Factor Method

: 94-3542 : 1.00

Matrix

: 8020 : Water

Lab File No.

: BX2092019

		LCS	
Compound Name	Cas Number	Concentration	QC Limit
		ug/L	ug/L
Benzene	71-43-2	31	29-47
Toluene	108-88-3	32	30-42
Ethyl Benzene	100-41-4	35	31-43
m/p-Xylene	NA	34	31-42
o-Xylene	95-47-6	33	31-42
1,3,5-trimethylbenzene	108-67-8	32	NA
1,2,4-trimethylbenzene	95-63-6	32	NA
1,2,3-trimethylbenzene	526-73-8	38	NA

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

93%

QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

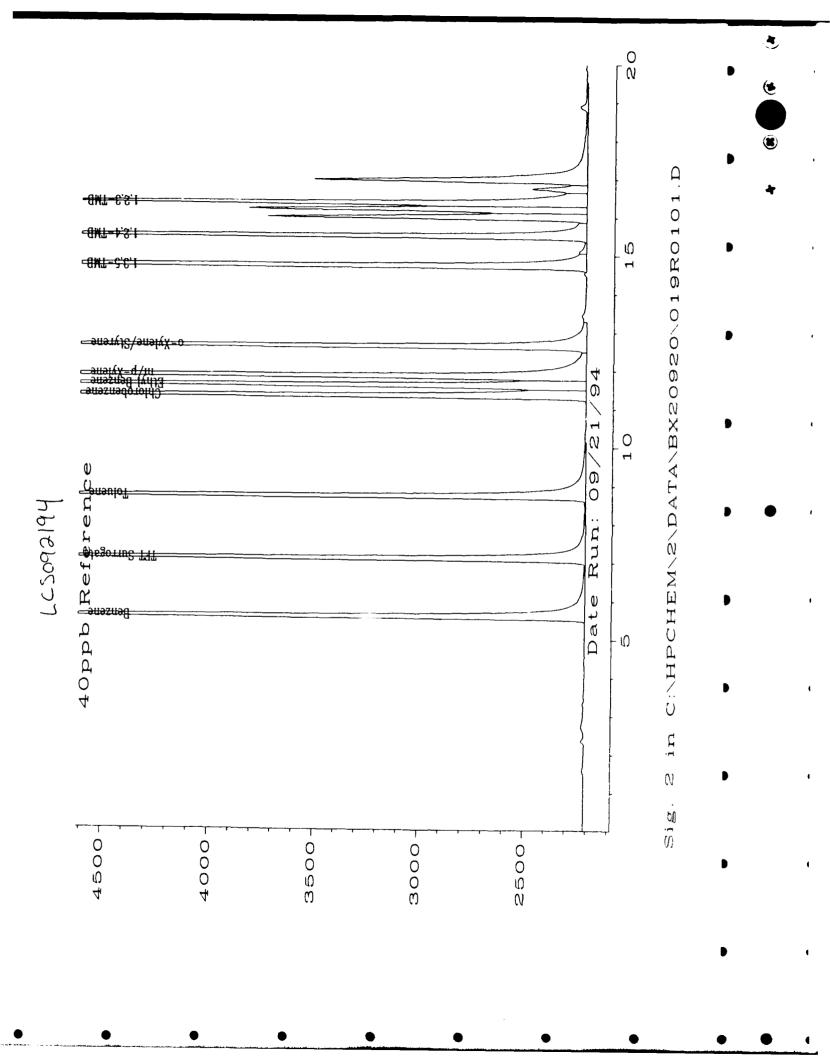
U = Compound analyzed for, but not detected.

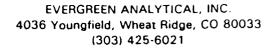
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available







TOTAL VOLATILE HYDROCARBONS (TVH)

Date Sampled
Date Received

9/15/949/15/94

Client Project Number Lab Project Number : Madison Ang : 94-3542

Date Prepared : 9/28/94

Matrix

: Water

Date Analyzed : 9/28/94

Method Number

: 5030/Mod.8075

Evergreen Sample #	Client Sample #	Surrogate Recovery	TVH mg/L	MDL mg/L
MB092894	Method Blank	100%	U	0.1
X94605	HP-CPT-3	130%	U	0.1
X94606	HP-CPT-11	134%	14	0.5
X94608	CPT-17S	113%	25	0.1
X94609	CPT-17D	132%	13	0.1
X94611	CPT-18S	115%	0.6	0.1
X94613	CPT-15S	129%	0.4	0.1
X94615	CPT-4D	105%	U	0.1

QUALIFIERS

U = TVH analyzed for but not detected.

B = TVH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

MDL = Method Detection Limit

Analyet

Approved

TOTAL VOLATILE HYDROCARBONS (TVH)

Date Sampled

: 9/15/94

Client Project Number

: Madison Ang

Date Received Date Prepared : 9/15/94

Lab Project Number

: 94-3542

: 9/28/94

Matrix

: Soil

Date Analyzed

: 9/28,29/94

Method Number

: -5030/Mod.8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TVH mg/Kg	MDL rng/Kg
MB092894	Method Blank	100%	U	0.10
X94607	WANG-CPT18-4.5	103%	U	0.13
X94610	WANG-CPT8-7.5	[1]	3000	5.5
X94612	WANG-CPT2-7	132%	0.4	0.12
X94614	WANG-CPT-11-6.5	[1]	4600	5.8

[1] = Unable to separate surrogate from analyte.

QUALIFIERS

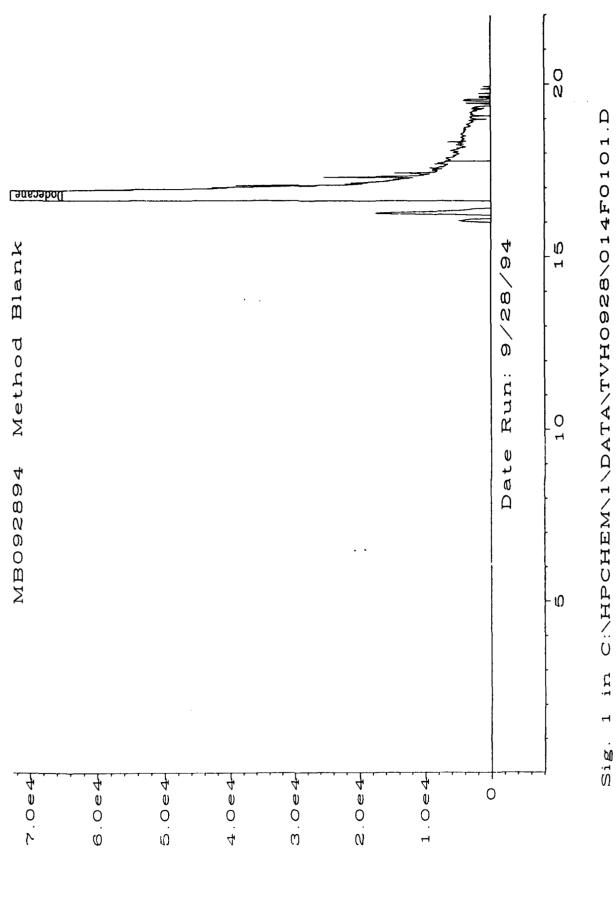
U = TVH analyzed for but not detected.

B = TVH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

MDL = Method Detection Limit

Analyst

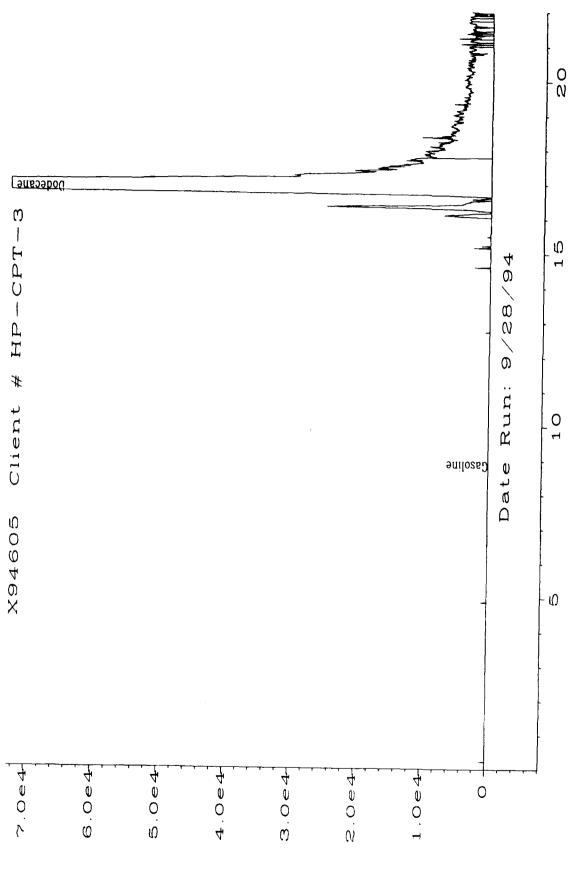


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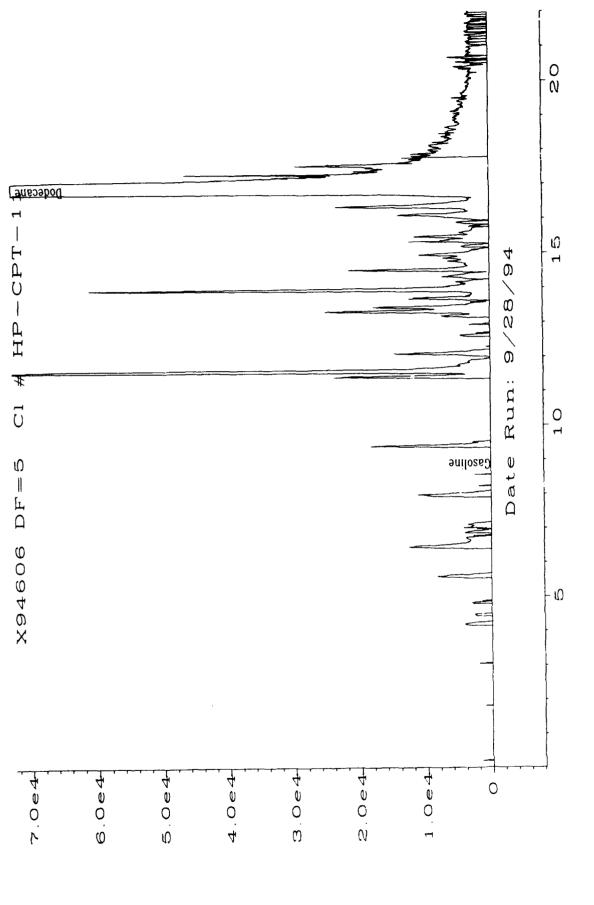


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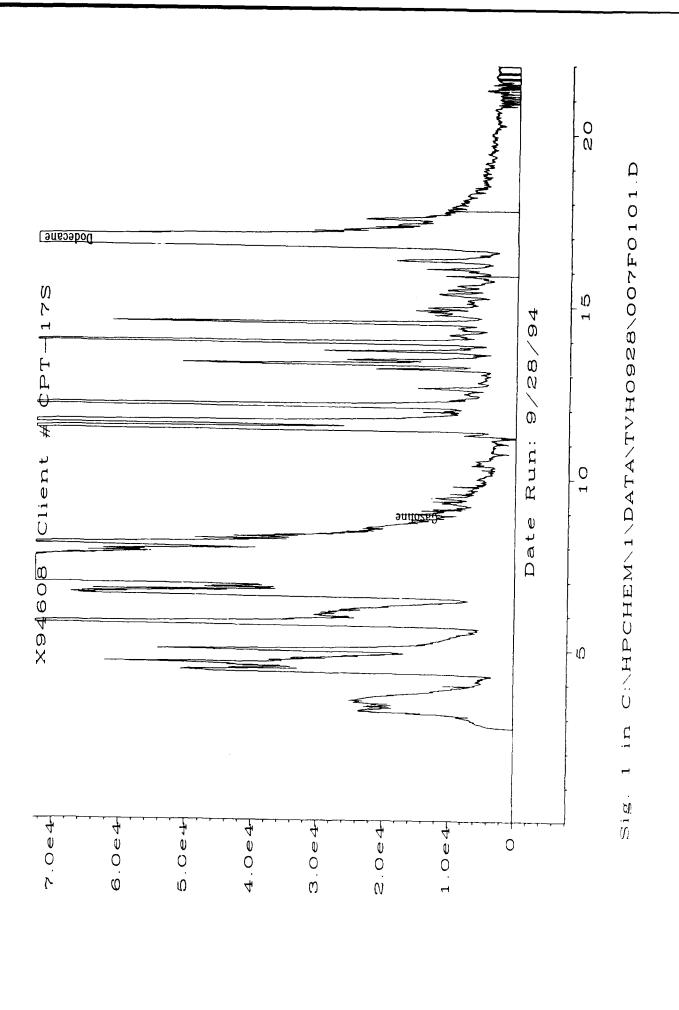


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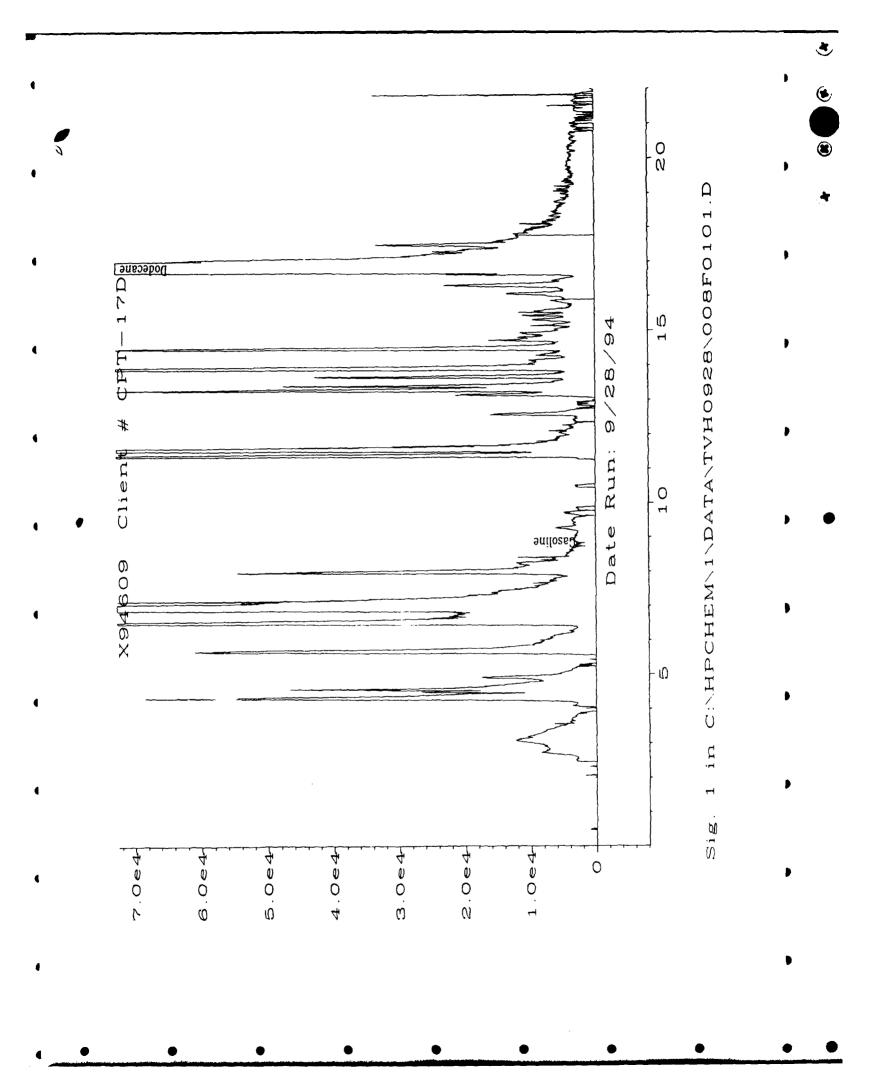
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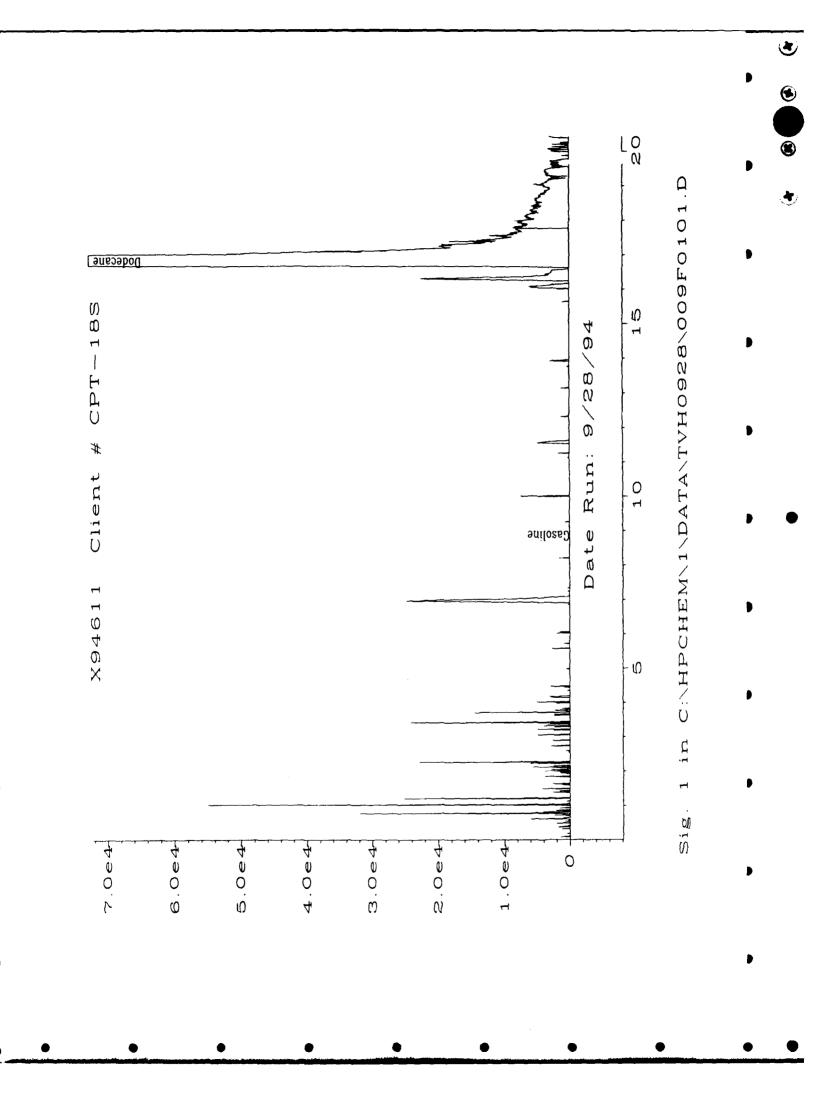
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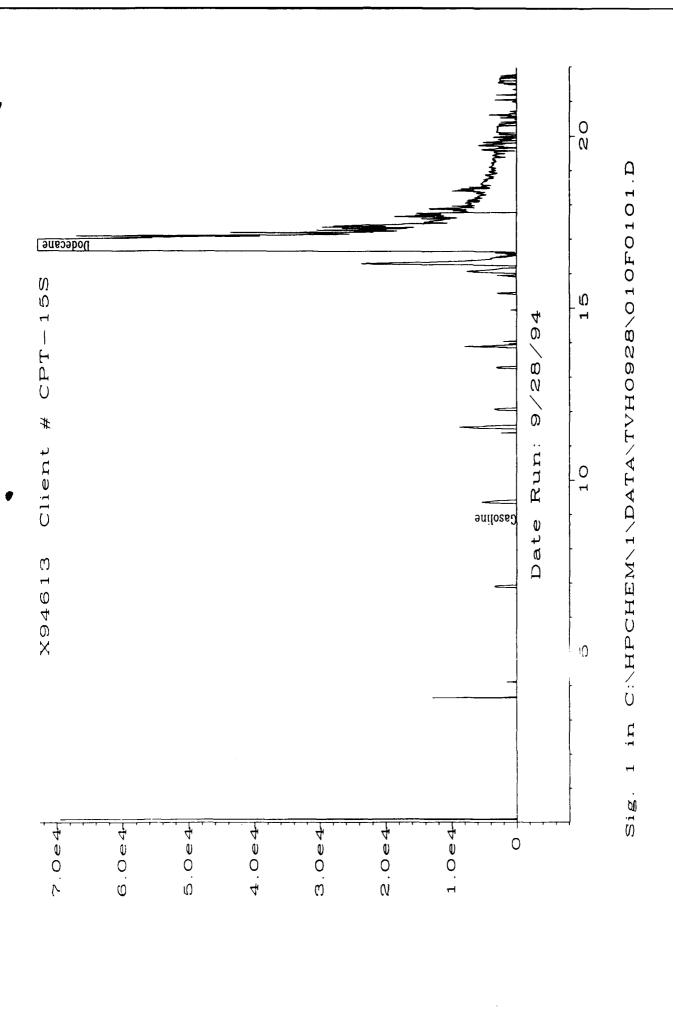


3

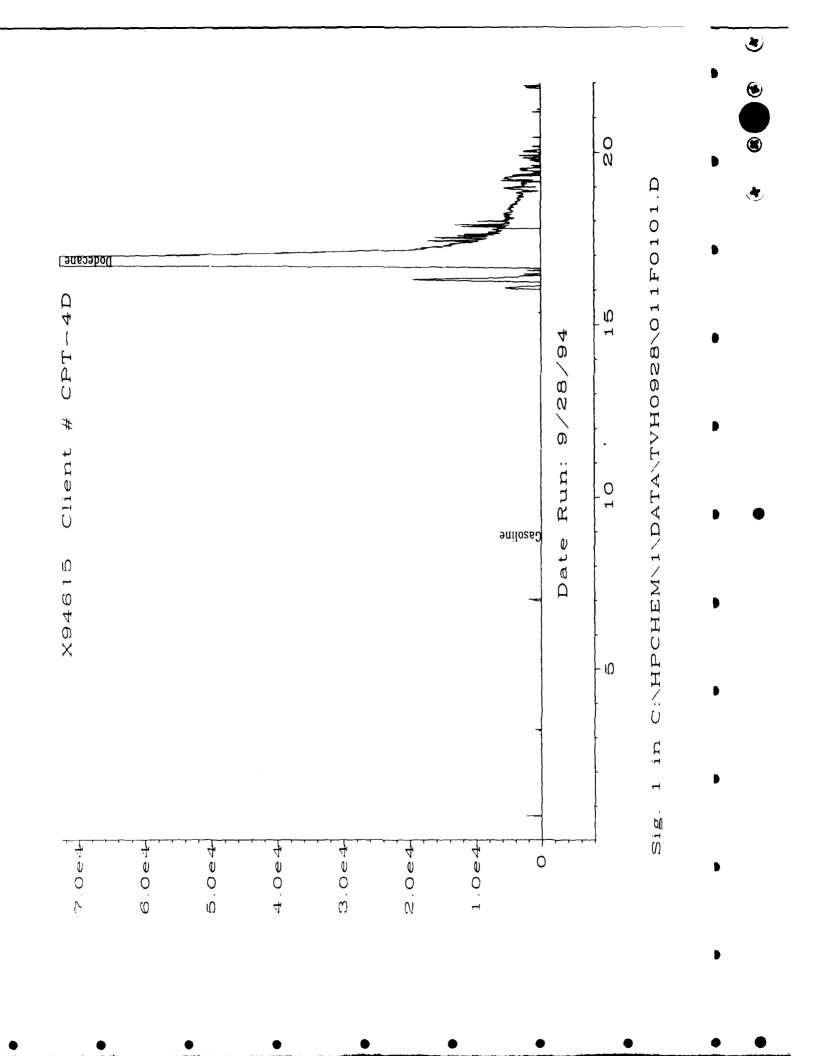
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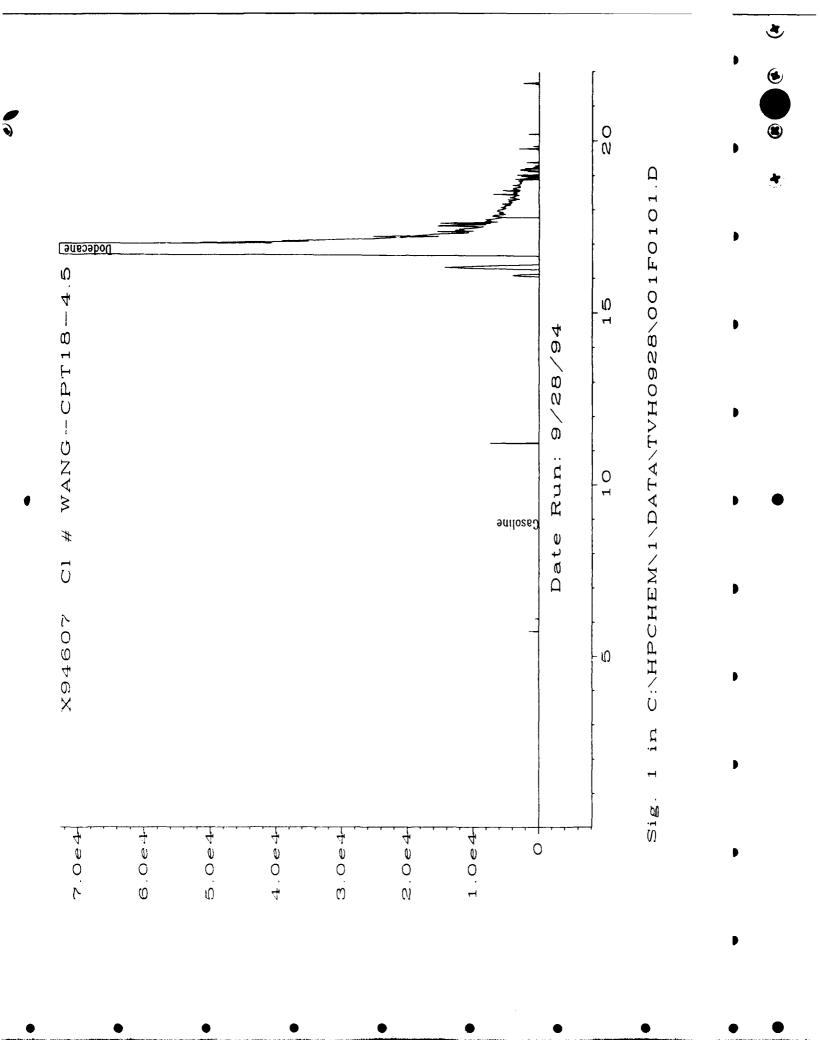


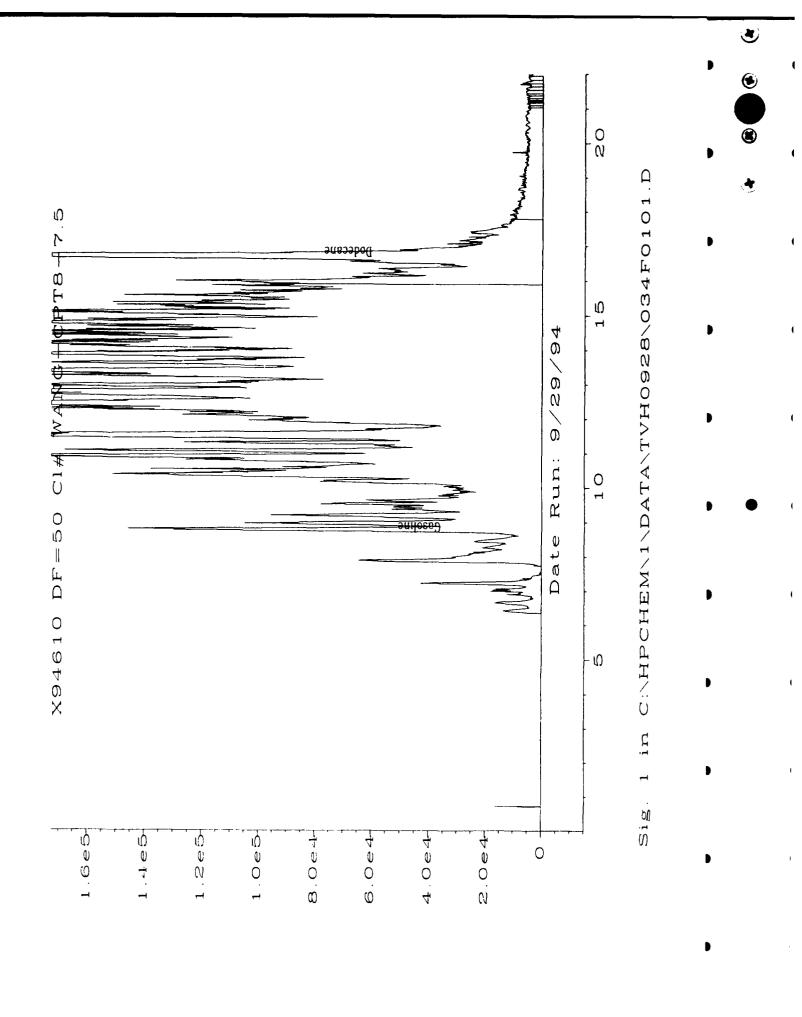


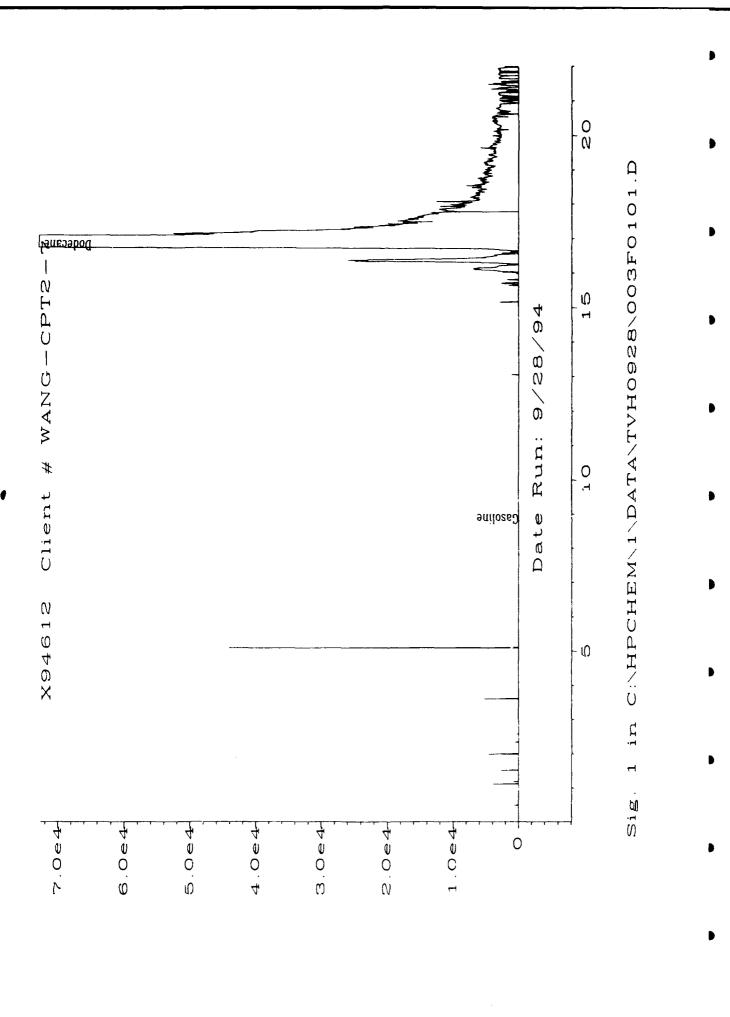


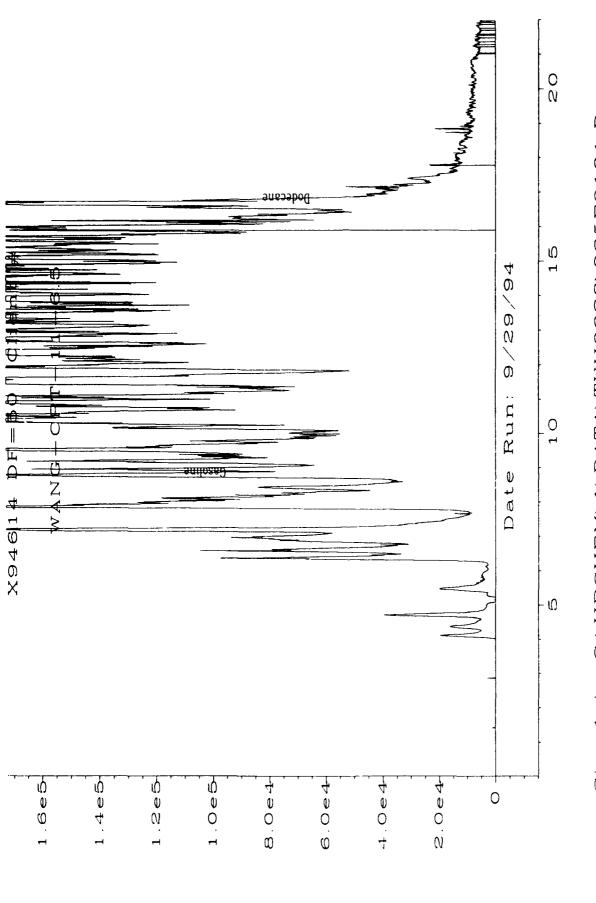
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Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL VOLATILE HYDROCARBONS TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.

: WANG-CPT18-4.5

Client Project No.

: Madison Ang

Lab Sample No.

: X94607

Lab Project No. EPA Method No. : 94-3542 : 8015 Mod.

Date Sampled
Date Received

: 9/15/94 : 9/15/94

Matrix

: Soil

Date Prepared

: 9/28/94

Method Blank

: MB092894

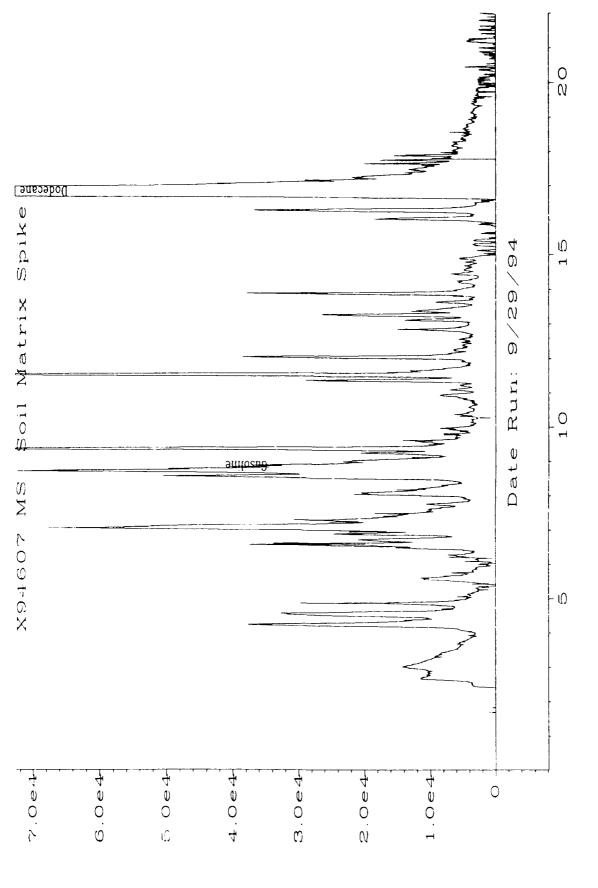
Date Analyzed

: 9/28,29/94

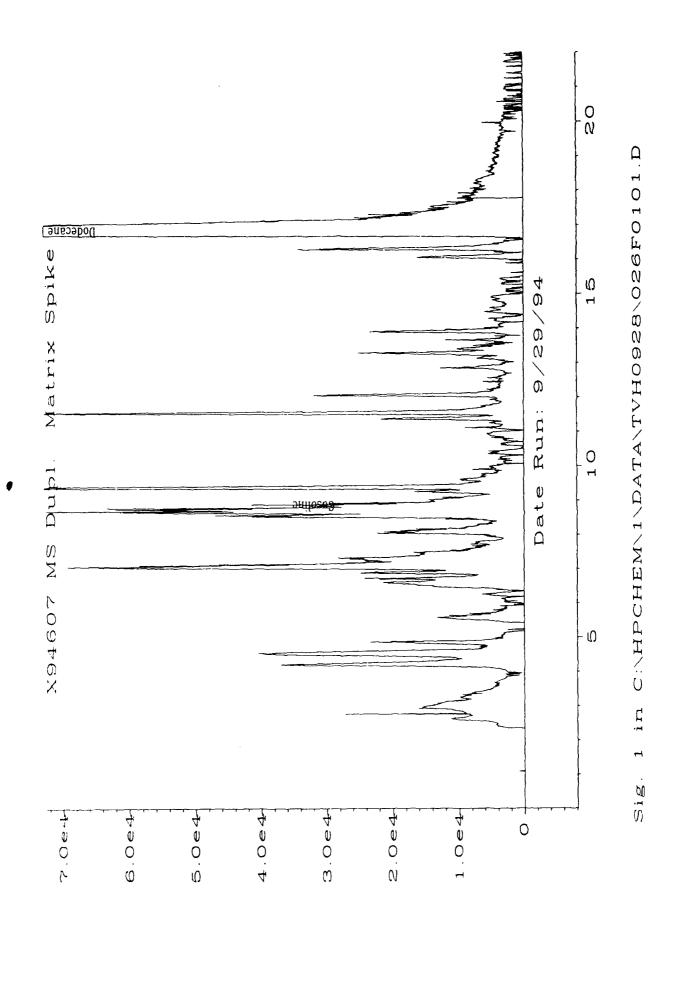
	Spike	Sample	MS		ac
Compound	Added	Concentration	Concentration	MS	Limits
·	(mg/L)	(mg/L)	(mg/L)	%REC	%REC
Gasoline	10	0	9.6	96	60-140

	Spike	MSD			(DC .
Compound	Added	Concentration	MS	RPD	Lir	mits
	(mg/L)	(mg/L)	%REC		RPD	%REC_
Gasoline	10	8.6	86	11.0	50	60-140

e Values outside	of QC limits.
RPD:	out of (1) outside limits.
Spike Recovery:	out of (2) outside limits.
Comments:	NA = Not analyzed/not applicable.



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TOTAL VOLATILE HYDROCARBONS (TVH) Laboratory Control Sample (LCS)

LCS Number

: LCS092894

Client Project Number

: Madison Ang

Date Prepared

: 9/28/94

Lab Project Number

: 94-3542

Date Analyzed

: 9/29/94

Matrix

: Water

Sequence Number

: TVH0928

Method ** mhor

: 3500/Mod. 8015

Compound Name	Theoretical Concentration mg/L_	LCS Concentration mg/ L	QC Limit mg/L	
Gasoline	10	10.3	7.0-13.0	

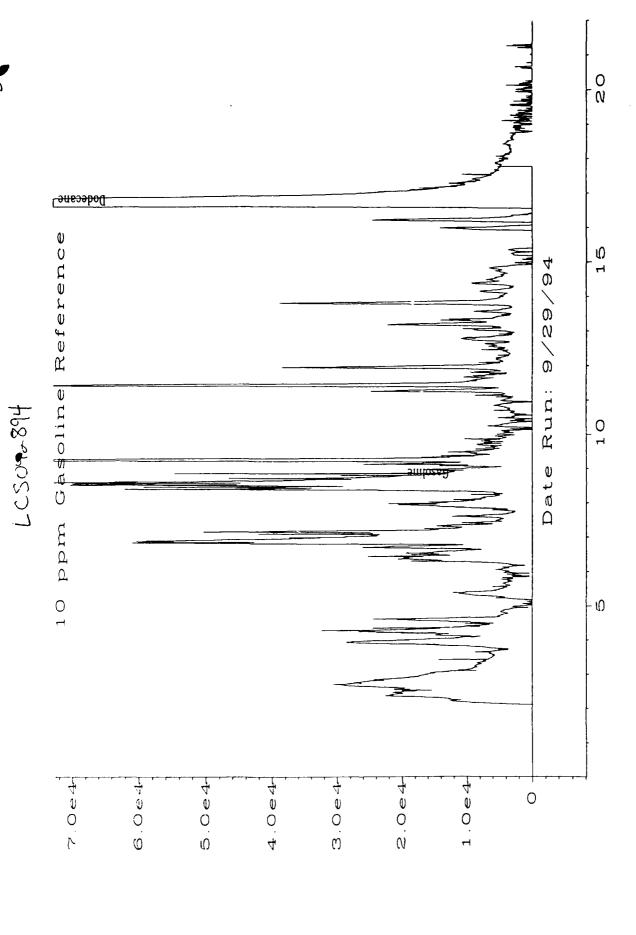
QUALIFIERS

U = TEH analyzed for but not detected.

B = TEH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

NA = Not Available.



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TOTAL EXTRACTABLE HYDROCARBONS (TEH)

Date Sampled **Date Received** : 9/15/94

Client Project Number

: Madison Ang

Date Prepared

: 9/15/94 : 9/19/94 Lab Project Number Matrix

: 94-3542 : Soil

Date Analyzed

: 9/21,22/94

Method Number

: 3500/Mod. 8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TEH mg/Kg	MDL mg/Kg
SB091994	Soil Method Blank	102%	U	10
X94614	WANG-CPT-11-6.5	119%	5300	12

QUALIFIERS

U = TEH analyzed for but not detected.

B = TEH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

MDL = Method Detection Limit

Analyst

TOTAL EXTRACTABLE HYDROCARBONS (TEH)

 Date Sampled
 : 9/15/94

 Date Received
 : 9/15/94

 Date Prepared
 : 9/19/94

Client Project Number
Lab Project Number

Method Number

: Madison Ang : 94-3542

Date Prepared : 9/19/94

Date Analyzed : 9/21,22/94

Matrix : Water

: 3500/Mod.8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TEH mg/L	MDL mg/L
WB091994	Water Method Blank	125%	U	0.5
X94605	HP-CPT-3	104%	U	0.5
X94606	HP-CPT-11	110%	3.7	0.5
X94609	CPT-17D	117%	3.3	0.5
X94613	CPT-15S	114%	υ	0.5
X94615	CPT-4D	110%	U	0.5

QUALIFIERS

U = TEH analyzed for but not detected.

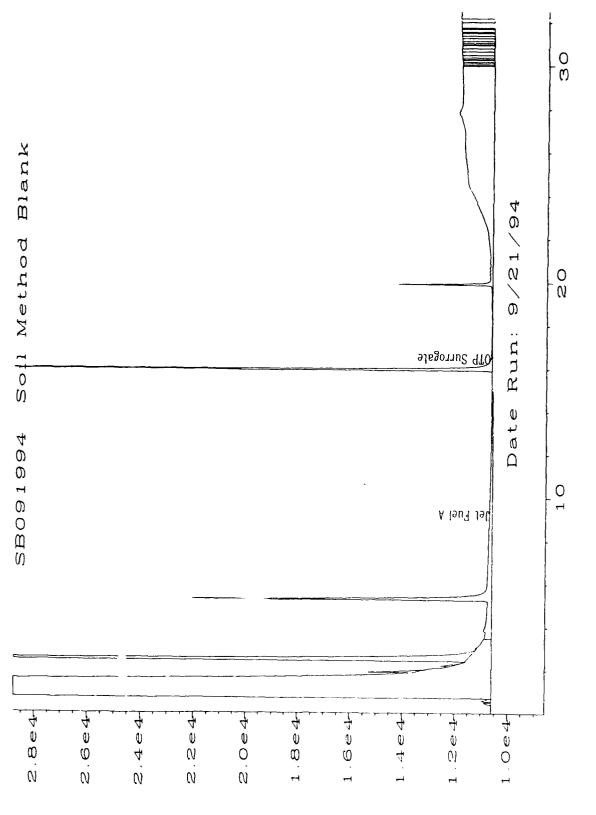
B = TEH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

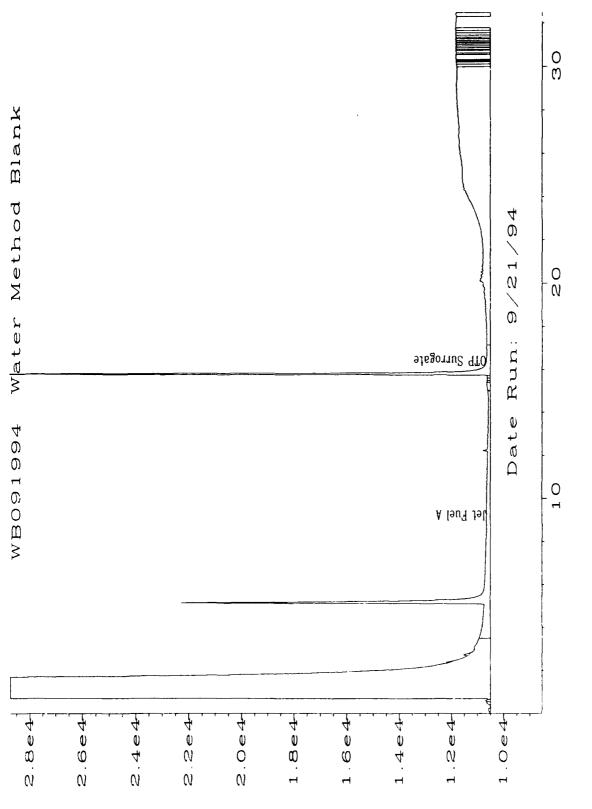
MDL = Method Detection Limit

Analyst

Approved



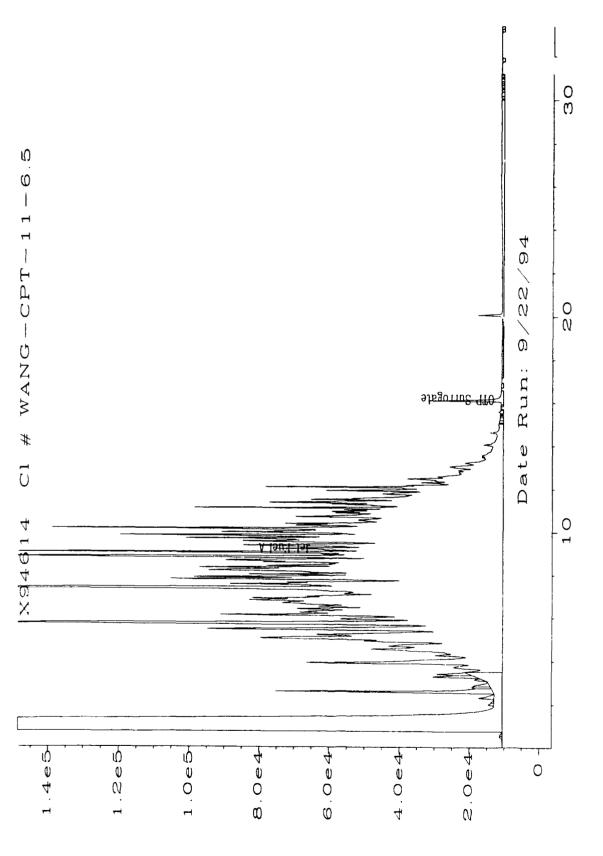
C:\HPCHEM\2\DATA\TEHO920\010R0101.D in N Sig



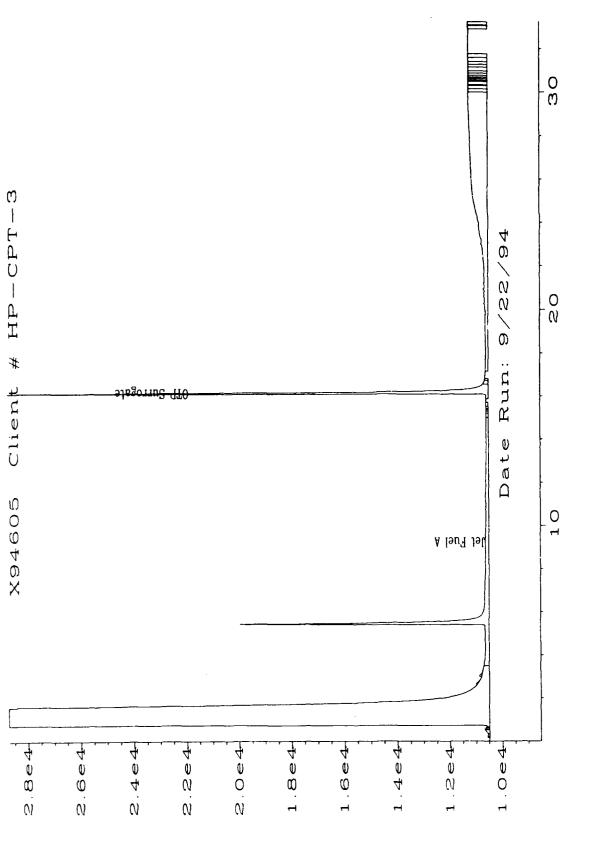
in C:\HPCHEM\2\DATA\TEH0920\013R0101.D Û Sign.

•

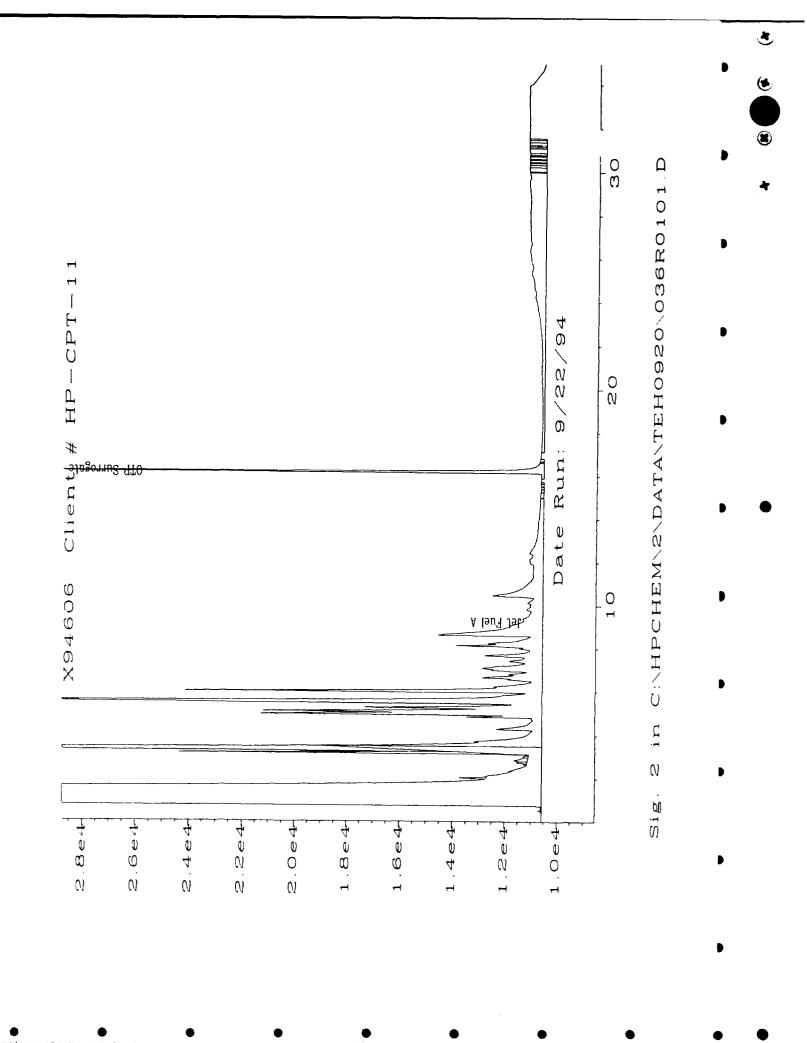
8

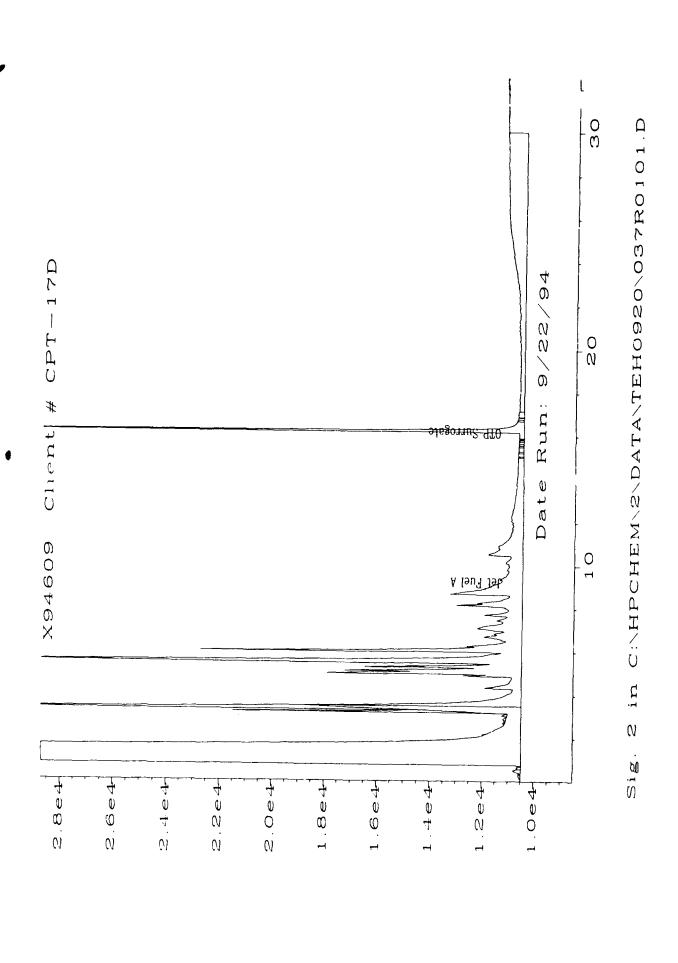


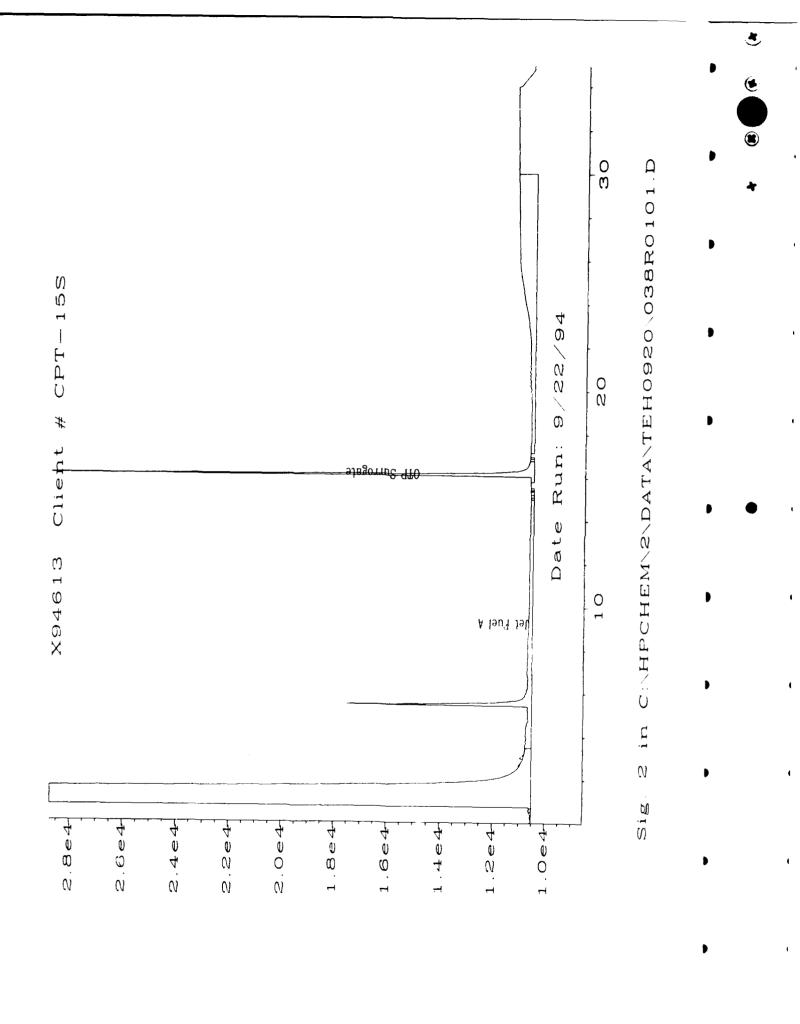
C:\HPCHEM\2\DATA\TEHO920\039R0101.D 2 in Sig

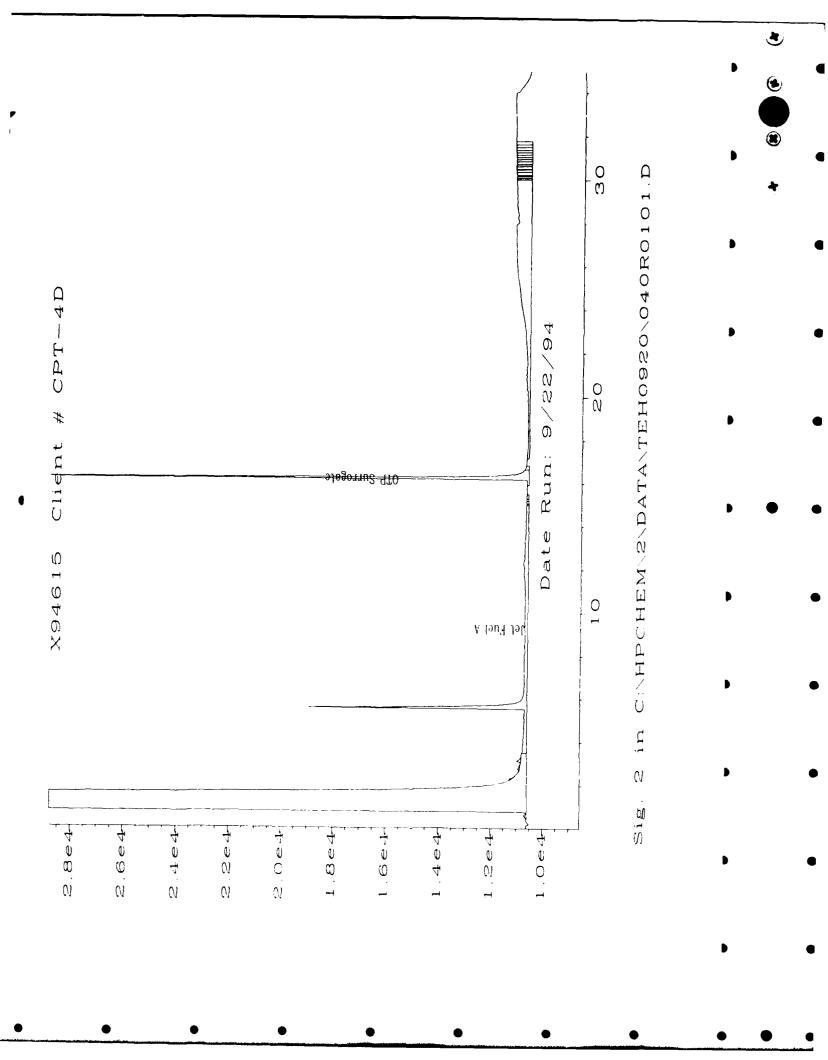


C:\HPCHEM\2\DATA\TEH0920\035R0101.D in Q Sig.









TOTAL EXTRACTABLE HYDROCARBONS (TEH) Laboratory Control Sample (LCS)

LCS Number Date Prepared : LCS092094*

Client Project Number Lab Project Number

: Madison Ang : 94-3542

Date Prepared

Date Analyzed

: 9/21/94 : 9/22/94

Matrix

: Water

Sequence Number

TEH0920

Method Number

: 3500/Mod. 8015

 Compound Name
 Theoretical Concentration mg/L
 Concentration mg/L
 Concentration mg/L
 QC Limit mg/L

 Jet Fuel A
 2000
 2706
 1200-2800

QUALIFIERS

U = TEH analyzed for but not detected.

B = TEH found in blank as well as sample (blank data should be compared).

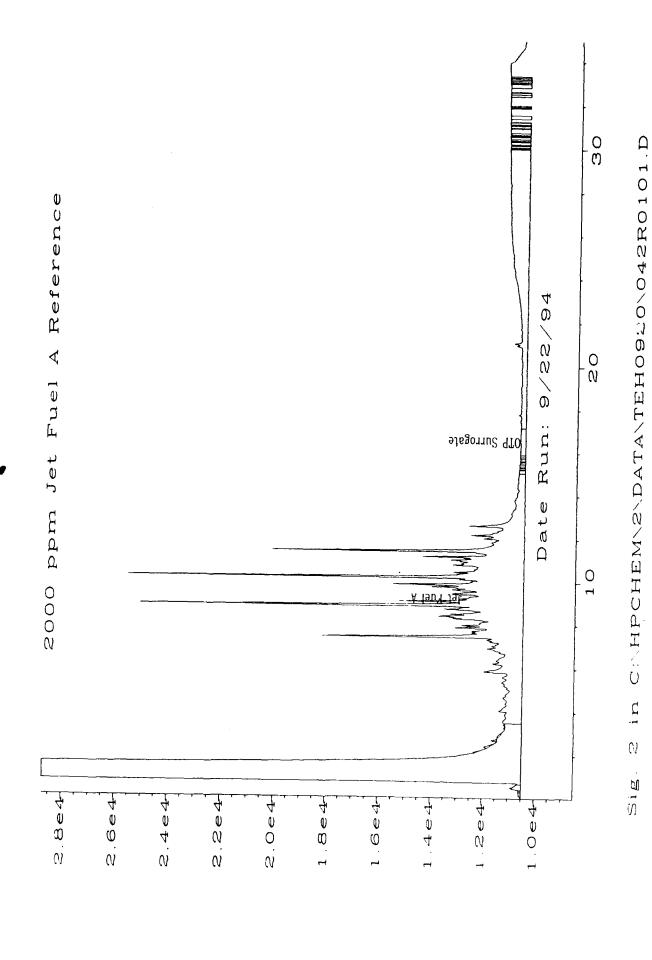
E = Extrapolated value.

NA = Not Available.

* = Direct injection, not extracted.

Analyst

Approved



Methane Data Report

		Client Project No	. :	Madison ANG
Date Sampled	: 09/15/94	Lab Project No.	:	94-3542
Date Received	: 09/15/94	Dilution Factor	:	see below
Date Prepared	: 09/29/94	Method	:	RSKSOP-175
Date Analyzed	: 09/29/94	Matrix	:	Water

Evergreen Sample #	Client Sample #	Matrix	Concentration mg/L	EDL* mg/L
MB092994	Method Blank	Water	ט	0.001 (DF=1)
x 94605	HP-CPT-3	Water	U	0.001 (DF=1)
x 94606	HP-CPT-11	Water	3.84	0.005 (DF=5)
x94609	CPT-17D	Water	5.2	0.01 (DF=10)
x94611	CPT-18S	Water	U	0.001 (DF=1)
x 94613	CPT-15S	Water	0.01	0.001 (DF=1)
x94615	CPT-4D	Water	0.76	0.005 (DF=5)

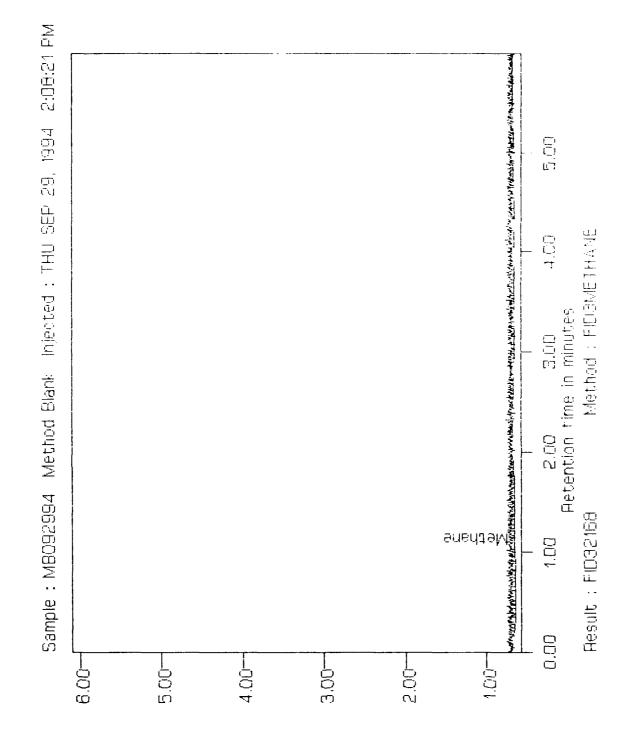
QUALIFIERS:

- B = Compound also found in the blank, blank data should be compared.
- * = Indicates the Estimated Detection Limit.

E = Extrapolated value.

Analyst

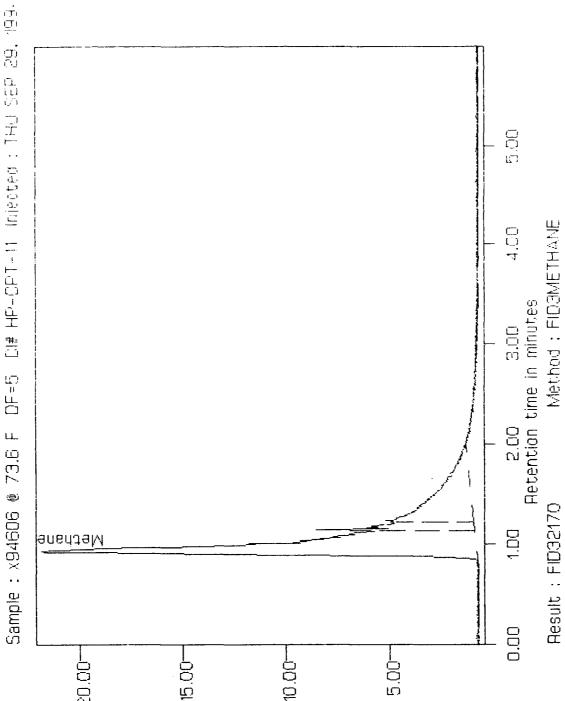
Approved



EBDM \ abudilgmA

E3DM \ abudilqmA

630r \ sbudilqmA



E301 \ abutilqmA

E3Dr \ abutilqmA

<u>্</u>

E3DL \ abutildmA

Wethod: FID3WETHANE

Result: FID32173

EBOY \ 9butilqmA

Anions

Date Sampled	:	9/15/94	Client Project ID.	:	Madison ANG
Date Received			• 1		94-3542
Date Prepared			Method	:	EPA 300.0
Date Analyzed	:	9/16/94	Matrix	:	Water

Evergreen Sample #	Client <u>Sample ID</u>	Nitrate as N (mg/L)
X94605	HP-CPT-3	4.47
X94606	HP-CPT-11	0.146
X94609	CPT-17D	0.062
X94611	CPT-18S	1.88
X94613	CPT-15S	0.100
X94615	CPT-4D	0.370
X94615(dup)	CPT-4D Dup	0.382
Method Blank	(9/16/94)	<0.056

Quality Assurance *

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X94605 Matrix Spike	HP-CPT-3	10.0	19.8	29.7	99.3
X94605 Matrix Spike	HP-CPT-3 Dup	10.0	19.8	29.1	93.4
MS/MSD	RPD				6.12
X94615/X9461	5 Dup RPD				3.01

* = Qualtity assurance results reported as Nitrate (NO_3) .

Analyst

Approved

Anions

Date Sampled			Client Project ID.	:	Madison ANG
Date Received	l :	9/15/94	Lab Project No.	:	94-3542
Date Prepared	l :	9/16/94	Method	:	EPA 300.0
Date Analyzed	l :	9/16/94	Matrix	:	Water

Evergreen Sample #	Client <u>Sample ID</u>	Nitrite as N (mg/L)
X94605	HP-CPT-3	<0.076
X94606	HP-CPT-11	<0.076
X94609	CPT-17D	<0.076
X94611	CPT-18S	<0.076
X94613	CPT-15S	<0.076
X94615	CPT-4D	<0.076
X94615 (dup)	CPT-4D Dup	<0.076
●Method Blank	(9/16/94)	<0.076

Quality Assurance *

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result <u>(mg/L)</u>	% <u>Recovery</u>
X94605 Matrix Spike	HP-CPT-3	10.0	<0.250	9.61	96.1
X94605 Matrix Spike	HP-CPT-3 Dup	10.0	<0.250	9.33	93.3
MS/MSD	RPD				2.96
X94615/X9461	5 Dup RPD				NC

NC = Not caluclated because sample and/or sample duplicate
 is below detection limit.

* = Quality assurance results reported as nitrite $(N \hat{Q}_2)$.

Analyst

Approved

<u>Anions</u>

Date Sampled : 9/15/94 Client Project ID. : Madison ANG
Date Received : 9/15/94 Lab Project No. : 94-3542
Date Prepared : 9/16,17/94 Method : EPA 300.0
Date Analyzed : 9/16,17/94 Matrix : Water

Evergreen Sample #	Client Sample ID	Sulfate (mg/L)
X94605	HP-CPT-3	29.0
X946 06	HP-CPT-11	2.85
X94609	CPT-17D	4.73
X94611	CPT-18S	113
X94613	CPT-15S	24.7
X94615	CPT-4D	7.94
X94615 (dup)	CPT-4D Dup	8.12
Method Blank Method Blank		<0.250 <0.250

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X94605 Matrix Spike	HP-CPT-3	10.0	29.0	37.2	81.9
X94605 Matrix Spike	HP-CPT-3 Dup	10.0	29.0	37.0	80.6
MS/MSD	RPD				1.60
X94615/X9461	5 Dup RPD				2.24

Approved

Anions

Date Sample	ed : 9/15/9	Client Project	ID. :	Madison ANG
Date Receiv	red : 9/15/9	Lab Project No		94-3542
	red : 9/20/94		:	EPA 300.0
Date Analy:	ed : 9/20/94	Matrix	:	Water

Evergreen <u>Sample</u> #	Client <u>Sample ID</u>	<pre>Chloride (mg/L)</pre>
X94605	HP-CPT-3	3.63
X94606	HP-CPT-11	6.22
X94609	CPT-17D	7.76
X94611	CPT-18S	1.95
X94613	CPT-15S	11.7
X94615	CPT-4D	4.99
X94615(dup)	CPT-4D Dup	4.97
Method Blank	(9/20/94)	<0.250

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X94615 Matrix Spike	CPT-4D	10.0	4.99	14.80	98.1
X94615 Matrix Spike	CPT-4D Dup	10.0	4.99	14.43	94.4
MS/MSD	RPD				3.84
X94615/X9461	5 Dup RPD		\wedge		0.40

Analyst

Approved

Miscellaneous Analyses

Date Sampled : 9/15/94 Client Project ID. : Madison ANG Lab Project No. : 94-3542 Date Received: 9/15/94

: 5.00 mgCaCO₃/L Date Prepared : 9/22/94 Matrix

Method : EPA 310.1 Date Analyzed: 9/22/94

Evergreen Sample #	Client <u>Sample ID</u>	<u>Matrix</u>	Total Alkalinity (mgCaCO ₃ /L)
X94605	HP-CPT-3	Water	369
X94605 Dup	HP-CPT-3 Dup	Water	369
X94606	HP-CPT-11	Water	358
X94609	CPT-17D	Water	251
X94613	CPT-15S	Water	459
X94615	CPT-4D	Water	415
Method Blank	(9-22-94)		<5.00

Quality Assurance

	Ture Value (mgCaCO ₃ /L)	Result (mgCaCO ₃ /L)	% Recovery
Spex Reference Lot WP 1290 Minerals	24.2	21.8	90.0
X94605/X94605 dup RPD			0.0

Approved



LABORATORIES, INC.

Quality Analytical Services Since 1936 4630 Indiana Street • Golden, CO 80403

ION-CLP ANALYSIS RESULTS

Date:

10/26/94

Lab Name:

Huffman Labs

Client: Evergreen Analytical

Contact:

Sue Zeller

Contact: Mark Mensik

Sample Matrix:

soils Huffman Lab #: 273494

rev01

Client	Lab	Element/	Dilution	Results	Units	Prep	Analysis	Sample	Method	Instrument
Smp#	ID#	Compound	Factor			Date	Date	Size (g)	#	ID
WANG-CPT2-7 27	349401	TC	NA	2.20	%	NA	10/08/94	0.851	Leco CR12	#7
WANG-CPT2-7 27	349401	TC	NA	2.81	%	NA	10/08/94	0.565	Leco CR12	#7
WANG-CPT3-5 27	349402	TC	NA	2.13	%	NA	10/08/94	0.359	Leco CR12	#7
WANG-CPT3-5° 27	349403	TC	NA	3.36	%	NA	10/08/94	0.489	Leco CR12	#7
WANG-CPT9-5.5 27	349404	TC	NA	2.81	%	NA	10/08/94	0.415	Leco CR12	#7
WANG-CPT18-4.5 27	349405	TC	NA	0.93	%	NA	10/08/94	0.510	Leco CR12	#7
WANG-CPT2-7 27	349401	СС	NA	1.68	%	NA	10/05/94	0.070	COU-02	#3
WANG-CPT2-7 27	349401	CC	NA	2.27	%	NA	10/05/94	0.072	COU-02	#3
WANG-CPT3-5 27	349402	cc	NA	2.05	%	NA	10/05/94	0.078	COU-02	#3
WANG-CPT3-5* 27	349403	CC	NA	3.32	%	NA	10/05/94	0.030	COU-02	#3
WANG-CPT9-5.5 27	349404	CC	NA	3.00	%	NA	10/05/94	0.034	COU-02	#3
WANG-CPT18-4.5 27	349405	CC	NA	0.75	%	NA	10/05/94	0.063	COU-02	#3
WANG-CPT2-7 27	349401	тос	NA	0.52	%	NA	NA	NA	by calc	NA
WANG-CPT2-7 27	349401	TOC	NA	0.54	%	NA	NA	NA	by calc	NA
WANG-CPT3-5 27	349402	TOC	NA	0.08	%	NA	NA	NA	by calc	NA
WANG-CPT3-5* 27	349403	TOC	NA	< 0.05	%	NA	NA	NA	by calc	NA
WANG-CPT9-5.5 27	349404	TOC	NA	< 0.05	%	NA	NA	NA	by calc	NA
WANG-CPT18-4.5 27	349405	TOC	NA	0.18	%	NA	NA	NA	by calc	NA

^{*(}MS/MSD)

Samples analyzed and results reported on as as received basis.

Soil samples are not homogeneous.

TC detection limit = 0.05%
CC detection limit = 0.02%
TOC detection limit = 0.05%

Client	Lab	Element/	Dilution	Results	Units	Prep	Analysis	Sample	Method	Instrument
 Smp#	ID#	Compound	Factor			Date	Date	Size (ml)	#	ID
CPT-1D 2734	19406	DOC	NA	8.6	mg/L	NA	10/08/94	10	SM5310D	#6
CPT-1D 2734	19406	DOC	NA	8.7	mg/L	NA	10/08/94	10	SM5310D	#6
HP-CPT-3 2734	19407	DOC	NA	2.5	mg/L	NA	10/08/94	10	SM5310D	#6

DOC detection limit = 0.5 mg/L



LABORATORIES, INC.

Quality Analytical Services Since 1936 4630 Indiana Street • Golden, CO 80403

NON-CLP ANALYSIS RESULTS LABORATORY CONTROL STANDARD

Date:

10/26/94

rev01

Client: Evergreen Analytical

Lab Name:

Huffman Labs

Contact: Mark Mensik

Contact:

Sue Zeller Huffman Lab #: 273494

LABORATORY CONTROL STANDARD

Lab	Source	Element/	True	Found	% R	Units		Method	Instrument
ID#		Compound	Value	Value			Date	#	ID
LCS	BN 4384	TC	3.35	3.37	101	%	10/08/94	Leco CR12	#7
LCS	BN 4056	CC	11.33	11.28	100	%	10/05/94	COU-02	#3
LCS	BN 99	DOC	5	5.8	116	mg/L	10/08/94	SM 53100	#6

SPIKE RECOVERY

Lab	Source	Element/	True	Found	% R	Units		Method	instrument
ID#		Compound	Value	Value			Date	#	ID
SPIKE	BN 3716	TC	12840	12309	96	ug C	10/08/94	Leco CR12	#7
SPIKE DUP	BN 3716	TC	14880	15608	105	ug C	10/08/94	Leco CR12	#7
SPIKE	BN 3716	CC	1310	1410	108	ug C	10/05/94	COU-02	#3
SPIKE DUP	BN 3716	CC	1174	1264	108	ug C	10/05/94	COU-02	#3
SPIKE	PD 8/9/94	DOC	25	23.6	94	mg/L	10/08/94	SM 5310D	#6
SPIKE DUP	PD 8/9/94	DOC	25	27.6	110	mg/L	10/08/94	SM 5310D	#6



LABORATORIES, INC.

Quality Analytical Services Since 1936 4630 Indiana Street • Golden, CO 80403

NON-CLP QA/QC ANALYSIS RESULTS INITIAL AND CONTINUING CALIBRATION VERIFICATION

Date:

10/26/94

Client: Evergreen Analytical

Lab Name:

Huffman Labs

Contact: Mark Mensik

Contact: Sue Zeller

Huffman Lab #: 273494

INITIAL CALIBRATION

Lab	Source	Element/	True	Found	% R	Units		Method	Instrument
 ID#		Compound	Value	Value			Date	#	ID
ICS	BN 3716	TC	12.00	12.02	100	~	10/08/94	Leco CR12	#7
ICS	BN 3716	CC	12.00	12.02	100	%	10/05/94	COU-02	#3
 ICS	BN 461	DOC	10	10.1	101	mg/L	10/08/94	SM 53100	#6

Slope =

Intercept =

NA NA

Single point calibrations for this test.

95% Correlation Coefficient =

NA

CONTINUING CALIBRATION VERIFICATION

Instrument	Method		Units	% R	Found	True	Element/	Source	Lab
ID	#	Date			Value	Value	Compound		ID #
#7	Leco CR12	10/08/94	- %	99	11.91	12.00	TC	BN 3716	CCS
#7	Leco CR12	10/08/94	%	99	11.90	12.00	TC	BN 3716	CCS
#3	COU-02	10/05/94	G.	100	12.05	12.00	CC	BN 3716	CCS
#3	COU-02	10/05/94	%	100	12.02	12.00	CC	BN 3716	CCS
#6	SM 53100	10/08/94	mg/L	103	10.3	10	DOC	BN 461	CCS
#6	SM 53100	10/08/94	mg/L	103	10.3	10	DOC	BN 461	CCS

HUFFMAN

LABORATORIES, INC.
Quality Analytical Services Since 1936
4830 Indiana Street • Golden, CO 80403

ANALYSIS: TOTAL CARBON	METHOD: HIGH TEMP COMB INFRARED DET.
INSTRUMENT : LECO CR12	ANALYZER # 7
PAI ANCE # 10	

. CALCIUM CARBONATE		STD. N.I.S.T. BUFFALO RIVE	R SEDIMENT (BRS)
12.00 %C (theory)	BN 3716	3.348 %C (theory)	BN 4384

SAMPLE #	SAMPLE WT G			CAREON PRE- CALIB	CARBON POST- CALIB	QC	% REC.
u va	Kul	1204	ED LUT	Vg			
wick	(\mathcal{L})	V		/			
likek	eco)						16006
103	1010		<u> </u>	12.29	1204	TO	10070
(03)	,1026	1 Cal) —————————	12.22	11.07	TIS	0000
Ca(03)	.1030	1 - 2 - W	<u>~</u>	12.11	12.13	70	10196
06(03)	1050			12.09	12.02	TO S	1000
TB	1 CBC	art 1	Pravin	Lect	00.002	IB	100/0
B	,		119		003	IB	
MB.	1/Ba	et			60 col	MB	
MBI	[∞	mB	
1	(CEV)1.				3,367	10	101%
003	1090				1192	ces	44%
						. = =	
						715	
						The second secon	
PSTC 1	DIAT	E INSC	REVIEWED	DATE	10/10/94	PAGE)	OF S

Celc3	1150/	250	 	13.16	11.91	rcs	110%
2730-01	T	2,0		2.200	D+/-	12.21	NH
2731-01				2812	5		
						W25 383	
272/12	4460	a a lka		E 270			
37340 (a(0)	.1070	> spike	<u>. </u>	5.270		V -	1.
D-Kerts	014i	Sopike.	 	5.52			(/
(a(03)	1240	/ '					
573/02	.3590			2.126			
2734-03	.4890			3.359			
2734-64	,4150			2812			
2734-05	·5100			CD-929			,
((03	1150			119d		(15	CF140

HÜFFMAN

LABORATORIES, INC.

Quality Analytical Services Since 1936 4630 Indiana Street - Colden, CO 80403

ANALYSIS	CARBONATE	METHOD	SOP COU-02
ANALYZER #	6	COULOMETER #	3
BALANCE #	10	Same and the same	

CALCIUM CA TD # 333)		37/6	% C THEORY	r = 12.00%	SODIUM CARBO Na2CO3	NATE B	4056	%C THEOR	Y = 11.33 %
SAMPLE NO.	TARE WT. GRAMS	TARE + SAMPLE WT.	SAMPLE WT. GRAMS	NOTES	COUNTS JL GRAMS	BLANK FESS	% CARBON AS STANDBRAD HOBRAD		% RECOVERY
Black					8.6			IB	
31 bost					7.6			MP	
31 boat					7.1			MA	
Ca(O)	0.583270	0.594208	0.010938		13 23.0	1315.0	12.02	Tcs	100 % rec.
1/1:CB	0.616050	0.629051	0.013001		1474.4	1466.4	11.28	4(5	100 %noc
1		/.							
	, .								
·				<u> </u>					
: <u>(0</u> ; (0.511114	0.526533	0.015419		1858.8	1650.F	12.00	CCS	100 %, rec
			-						
1/2									
			7	4 2 2 2 2 2 2	- Ad Page Alexander				
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		the second second second second second second second second second second second second second second second se	with the first time and with a second	4 2 × 10 × 10 × 10	ng an indicate the second	mer in the tent of	कर सम्बद्धाः संस्कृतस्य स		
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10	n Herr	DATE	10-5-94	REVIEW	=0 	1 DATE	1 5 70		OF 3

HÚFFMAN

ABORATORIES, INC. antry Analytical Services Since 1936 30 Indiana Street - Golden, CO 80403

ANALYSIS	CARBONATE CARBON	METHOD	SOP COU-02		
ANALYZER #	6	COULOMETER #	3		
BALANCE #	10	The second second second			

30 maiare 30	eet • Golden, CO	30403			10		and the same	West of the second	Raiseas comme
D #333)		37/6	% C THEOR	ty = 12.00%	SODIUM CARBO Na2CO3	NATE	BOTTLE # 40ずし	%C THE OR	Y = 11.33 %
SAMPLE NO.	TARE WT. GRAMS	TARE + SAMPLE WT.	SAMPLE WT. GRAMS	NOTES	COUNTS IL GRAMS	LESS BLANK	% CARBON AS CARBONATE CARBON		% RECOVERY
# Ca(02	0.621539	0.632764	0.011225		1356.3	1350.	3 12.03	<65	100 %
went	to	lunch							
#CaCO~	0 <i>5</i> 77900	©.559427	0.611528		1396.7	1388.	12.05	ccs	100 %re
		را محمد	VI						
N									
734-01	528/-50	0.578804	0 070154		1199.7	1181.7	1.684	dup	
_		0.618212			1641.2	1633.2		1 BC	dupt 1% of meson
		6.605659		,	2008.8				
Eac03)		0.575824		<u> </u>	gee sp	ike rec	avera shout		
	0.578023	0.630676	0.032653	Spike	1919.1	1911.1	109% spi	Spike rec	%18c
*C.CO.X).528237	598023	0.009786		Sec spik	e recov	ery sheet	spike dup	
<u>Cu (03 </u>	0.553322	0.565386	0.012066		1451.9	1473.9	11.97	CC5	98 % rec
734-02	0.549171	0.627515	0.076347		1615 2	1607.2	2.051		
734-036	0.612176	0.642622	0.030446		1017.5	1009.5	3.315		
		7.684902			1016.6	1008.6			
734-056	7.659998	0.722906	0.062908		481.9	473.9	0.753		
							0.01		
VALYST	n Hermi	DAT	E 10-5-9	REVIEWE	10 / /	DAT	10-9 94		~
1 01	A Hermio	///	70-5-7	7	7 /	<u> </u>	10 9 90	PAGE 2	OF 🚓 ED:20092

HUFFMAN

ABORATORIES, INC.

salty-Analysical Services Since 1956

30 Inclana Street • Golden, CO 80403

ANALYSIS	CARBONATE	METHOD	SOP COU-02
ANALYZER #	6	COULOMETER #	3
BALANCE #	10	gallangian as angan	DANCES AND AND AND AND AND AND AND AND AND AND

D 1 322)	RBONATE C=CO3	37/6	% C THEOR	Y = 12,00%	SODIUM CARBO Na2CO3	NATE E	OTTLE# 40ぎ6	%C THEOR	Y = 11.33 %
AMPLE NO.	TARE WT. GRAMS	TARE + SAMPLE WT.	SAMPLE WT. GRAMS	NOTES	COUNTS JL GRAMS	LESS BLANK 8	% CARBON AS CARBONATE CARBON		% RECOVERS
		-							
						,			
5002	0.673214	0.684213	0-010999		1330.3	1322.3	12.02	CCS	100 %
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Ton	n Herm	a.a DATE	10-5-9	REVIEWE	D fi	DATE	10-9-49	DACE 3	or 3

HUFFMAN .

LABORATORIES, INC.

Quality Analytical Services Since 1936 4630 Indiana Street - Goldon, CO 80403

1447 1019 11442 101	AL ONOMINO CONTEST - (1.00)
METHOD AMPOULS	DETECTION LIMIT SO MO CIL
4}	COULOMETER #

10 mg/L STD (dil. date) 9-27-94	5 mg/L STD	(dil. date) <u>4-17-7</u> 4	25 mg/L std.	(dii. date) <u>9-2/-9</u> 4
Tenzoic Acid: BN 4//	KHP: BN 99		XHP	: BN_ <i>99</i>

Sample #	Sample Vol. (ml)	µg C re: ding	µg C Blank	TOC mg C/L	Notes	ac	% Rec
El.		2.9	3.0				
12 mg / L	17:	104.2		10.12	Dance	ICS	
Som 11	10	61.0		5,80		LC5	11635

						~ e/- p-	
			285 -				
							V Comment
· //	10	1059		10.29		cis	103/
X +10° (1. E.	10					_	E:
-1 (.51)		20,00	(
734-06	10	58,9		3.59			
7:4-07	10	28.1		251		1	
-54.05	10	27,3		7.43			
79406	10	900		8.70	:	15 2 - 12 - 13 - 13 - 13 - 13 - 13 - 13 -	93%
13.4-16	17.	104.1		1:11	Maria Cara Cara Cara Cara Cara Cara Cara	1 22.6	
734-05	13	103.3		15.52	the safe of	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	107%
-1/ ene	10	105.1	<u> </u>	10.21		(0.00)	1:32

Comment | DATE | REVIEWED | DATE | PAGE ! OF |

 $\label{eq:condition} \mbox{VOTE}: \mbox{ mg C(L = [pg C : sample)] = [pg C : blank, j = [sample volume : m]].}$

lug Cit = (mg Cit + 10)

46 79 4 STE EHP BN97 Li 5-9-94

•	ample Log Sheet	Project	π <u>74-34</u>	73	
(s) Sampled: 09/1	13/94 COC	Date Due:	09/28	/94	
	/94 1030 Holding Madison Ang	9/27-	BTEX,T	O-Methane VH,ALKALIN STANDARD	YTIN
nt: Engineering S	Science Inc.	Shipping Cha	rges <u>N</u>	/A	
ss: 1700 Broadwa	ay Suite 900	E.A. Cooler	# <u>398</u>	_	
Denver, CO	80290	Airbill # 95	8189294	46 FEDEX	
ct: Gail Saxton		Custody Sea			
nt P.O. 722450.09	9020 Fax #831-8208	Cooler X COC Present Sample Tags Sample Tags Sample(s) S	Prese Liste	nt?	Y Y Y
Client					
ID#	Analysis	<u>Mtx</u>	Btl	Loc	-
12A/B MW-16	BTEX,TMB	W	40V	2	
13A/B MW-13	BTEX, TMB	W	40V	2	
1/1 /R MW-12	BTEX, TMB	W	40V		
14A/D NW 12				2	
45A/B MW-11	BTEX, TMB	<u> </u>	40V		
45A/B MW-11	BTEX, TMB	W W			
45A/B MW-11					
45A/B MW-11 46A/B MW-25	BTEX,TMB BTEX,TMB	W	40V 40V 40V	2	
45A/B MW-11 46A/B MW-25 47A/B MW-UNK 48A TRIP BLAN 42C/D MW-16	BTEX,TMB BTEX,TMB K BTEX,TMB TVH	W W W	40V 40V 40V 40V	2 2 2 2	
45A/B MW-11 46A/B MW-25 47A/B MW-UNK 48A TRIP BLAN 42C/D MW-16 43C/D MW-13	BTEX,TMB BTEX,TMB K BTEX,TMB TVH TVH	W W W W	40V 40V 40V 40V 40V	2 2 2 2 2	
45A/B MW-11 46A/B MW-25 47A/B MW-UNK 48A TRIP BLAN 42C/D MW-16 43C/D MW-13	BTEX,TMB BTEX,TMB K BTEX,TMB TVH TVH TVH	W W W W	40V 40V 40V 40V 40V 40V	2 2 2 2 2 2	
45A/B MW-11 46A/B MW-25 47A/B MW-UNK 48A TRIP BLAN 42C/D MW-16 43C/D MW-13 44C/D MW-12 45C/D MW-11	BTEX,TMB BTEX,TMB K BTEX,TMB TVH TVH TVH TVH	W W W W W	40V 40V 40V 40V 40V 40V 40V	2 2 2 2 2 2 2 2	
45A/B MW-11 46A/B MW-25 47A/B MW-UNK 48A TRIP BLAN 42C/D MW-16 43C/D MW-13 44C/D MW-12 45C/D MW-11 46C/D MW-25	BTEX,TMB BTEX,TMB K BTEX,TMB TVH TVH TVH TVH TVH TVH	W W W W W W	40V 40V 40V 40V 40V 40V 40V 40V	2 2 2 2 2 2 2 2	
45A/B MW-11 46A/B MW-25 47A/B MW-UNK 48A TRIP BLAN 42C/D MW-16 43C/D MW-13 44C/D MW-12 45C/D MW-11	BTEX,TMB BTEX,TMB K BTEX,TMB TVH TVH TVH TVH	W W W W W	40V 40V 40V 40V 40V 40V 40V	2 2 2 2 2 2 2 2	

X:
X:
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i .	Client ID#	Analysis	Mtx	Bt1	Loc
42E-G	MW-16	METHANE	W	40V	2
43E-G	MW-13	METHANE	W	40V	2
44E-G	MW-12	METHANE	W	40V	2
45E-G	MW-11	METHANE	W	40V	2
46E-G	MW-25	METHANE	W	40V	2
47E-G	MW-UNK	METHANE	W	4 0 V	2
42H	MW-16	SO ₄ ,NO ₂ ,NO ₃ ,Chloride	W	125P	B8
43H	MW-13	10	W		B8
44H	MW-12	11	W	11	B8
45H	MW-11	u .	W	tı .	B8
46H	MW-25	11	W	tt	В8
47H	MW-UNK	11	W	ft	B8
42I	MW-16	ALKALINITY	W	500P	B8
43I	MW-13	н	W	11	B8
44I	MW-12	11	_ W	11	B8
45I	MW-11	11	W	te	B8
46I	MW-25	н	W	11	B8
47I	MW-UNK	11	w	11	B8
42J	MW-16	тен	W	1LA	B8
43J	MW-13	11	W	1LA	B8
44J	MW-12	II .	W	1LA	B8
45J	MW-11	n	W	1LA	В8
46J	MW-25	11	W	1LA	В8
47J	MW-UNK	11	W	1LA	B8
42K	MW-16	DISSOLVED ORGANIC CARBON	W	250P	OUT
43K	MW-13	11	W	250P	OUT
47K	MW-UNK	11	W	250P	OUT

Page 2 of 2 Pages
Project # 94-3495

mple to be returned

CHAIN OF CUSTODY RECORD / ... ALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.

Page_Lof_

COMPANY ENGINEETING - SCIENCE	Reving-Science	1	4036 Youngheld COMPANY CONTACT (print) 4 Wheat Ridge Colorado 80033	Matt. Susinson
	STATE (U. ZIP 80390		7274	20
PHONE # 303-831-81100		303-8	31-8208 FAX RESULTS Y 1(P) TURNAROUND REQUIRED	30 days
Sampler Name:			expedited turnaround subject to additional dee	t to additional see
(signature) Sylva to	1, Math June	MATRIX	ANALYSIS, FEQUESTED	
(print) S. Hoffer Q	M. Swanson	Quno	(circle)+	
Evergreen Analytical Cooler No. 并398	er No. #398	e) circle)	(Herb/Metal) (Herb/Metal) (Herb/Metal) (Herb/Metal) (Herb/Metal) (Herb/Metal) (Herb/Metal) (Herb/Metal) (Herb/Metal)	
	ontainers	Onnking/Dis cle) blid (circle) Slurry (circle nnic Liquid (nnic Liquid (see (identif	20/624/25/4.25/26/25/25/25/25/25/25/25/25/25/25/25/25/25/	
SAMPLE IDENTIFICATION	DATE SAMPLED TIME 2	Soil \ So Sludge/S Oil/Orga	Pesticiel Possel I Chicke I Ch	Notes
MW-16	9/13/99 11:40/11	×	<i>+</i> × × × ×	
MW-13	9/13/99 12:550 11	~	XXXXX	
M W - 12	9/13/94 2:10m10	~	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	
MW- 11	9/13/94 3:2500/10	~	XXXX	
MW-25	9/13/94 4:15pm 10	`*	XXXXXX	
MW-UNK	9/13/94 4:50pm/D	×	XXXX Sin X	
Instructions:				
aut	Samples well	ed in he	8	
Relinquished by Signature)	9//2 5.4K	Received by: (Signature)	nguist	natore) Date/Time
Relinquished by Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature) Date/Time Received	Date/Tim

•

	B	vergreen	Anal	ytic	al Sa	mple	Rece	ipt/	Che	ck-in	Reco	ord	
ate	& Time	Rec'd:	103	e	9/1	14/94	Ship	ped	Via	FEU	Er	95	8-189
Clier	nt : <u></u>	rgiaz	04.>	<u>بخ</u>	Se.	000	e		(Air	bill #	if a	pplica	ble)
		ect ID(s											
EAL F	Project	#(s):94	1-				-	EAL	Coo	ler(s):	Y	N
Coole	er#	398					····						-
_	-	Ø N							Y	N	Y	N	
remper	rature °C	=											~
1. Cu	Seals	seal(s) on coole on bottl	er int	act						¥ ×		N	N/A
2. Ch	nain of	Custody	pres	ent:					_	<u>\</u>	_		
		rs broke t on COC			ing:				_			\leq	
4. Co	ntaine	rs label	.ed:							<u>×</u>			
		es w/ bo c on COC			eived	:			<u>)</u>	×			
		es w/ la c on COC)					_		_		
7. He		e in VOA ment on				only						~ ~	
. vo.	A sampl	les pres	erved	:					<u> </u>	Btex	ر لب	Met	354e
L	ist dis	red on m screpanc provid	ies								ly.		
0. M	etal sa	mples p	resent	::									
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		to be for			1:				_				
1. Sl	hort ho	lding t	imes:						_				
-	specify	parame	cers_										
.2. Mi	ulti-ph	ase sam	ple(s)	pre	esent	;					_>	<u> </u>	
.3. C	OC sign	ed w/ da	ate/ti	me:						<u> </u>			
ommer!	nts:												

BTEX Data Report

Client Sample Number	: MW-16	Client Project No.	: Madison Ang
Lab Sample Number	: X94342	Lab Project No.	: 94-3495
Date Sampled	: 9/13/94	Dilution Factor	: 1.00
Date Received	: 9/14/94	Method	: 602
Date Extracted/Prepared	: 9/16/94	Matrix	: Water
Date Analyzed	: 9/16/94	Lab File No.	: BX1091614
		Method Blank No.	: MB091694

		Sample	
Compound Name	Cas Number	Concentration	MDL
		ug/L	ug/L
Benzene	71-43-2	5.1	0.4
Toluene	108-88-3	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylene (m/p + o)	1330-20-7	2.2	0.4
1,3,5-trimethylbenzene	108-67-8	U	0.4
1,2,4-trimethylbenzene	95-63-6	2.4	0.4
1.2.3-trimethylbenzene	526-73-8	0.4	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 82%
QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

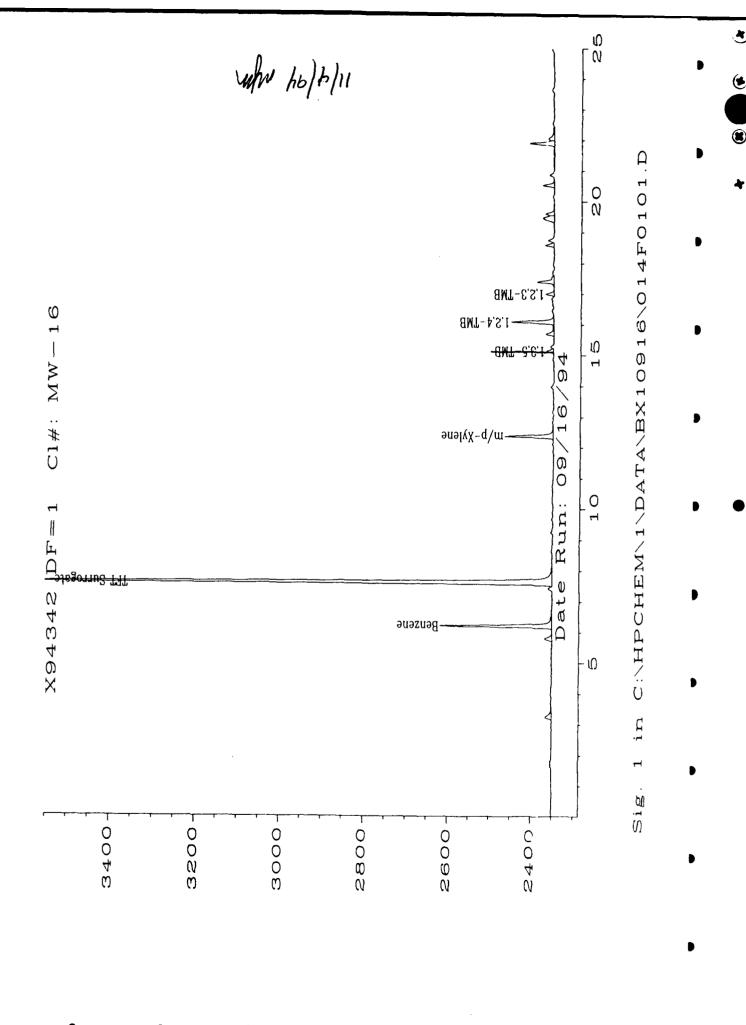
B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

Approved

Analyst



BTEX Data Report

Client Sample Number	: MW-13	Client Project No.	: Madison Ang
Lab Sample Number	: X94343	Lab Project No.	: 94-3495
Date Sampled	: 9/13/94	Dilution Factor	: 1.00
Date Received	: 9/14/94	Method	: 602
Date Extracted/Prepared	: 9/16/94	Matrix	: Water
Date Analyzed	: 9/16/94	Lab File No.	: BX1091615
		Method Blank No.	: MB091694

		Sample	
Compound Name	Cas Number	Concentration	MDL
		ug/L	ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	υ	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylene (m/p + o)	1330-20-7	U	0.4
1,3,5-trimethylbenzene	108-67-8	υ	0.4
1,2,4-trimethylbenzene	95-63-6	U	0.4
1,2,3-trimethylbenzene	526-73-8	U	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 84% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

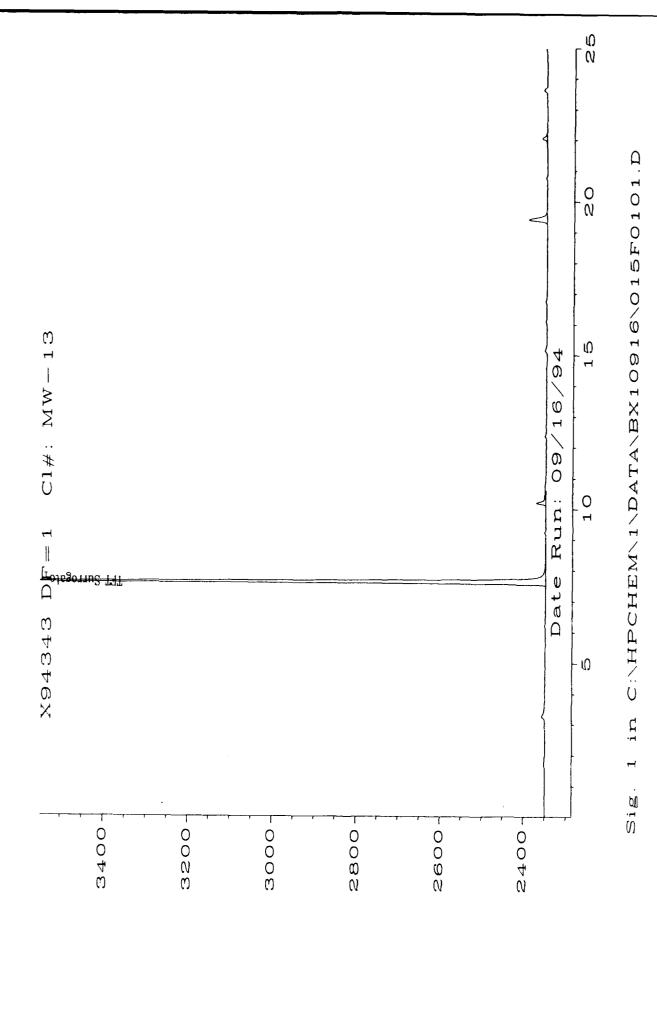
B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

Analyst

Approved



BTEX Data Report

Client Sample Number	: MW-12	Client Project No.	: Madison Ang
Lab Sample Number	: X94344	Lab Project No.	: 94-3495
Date Sampled	: 9/13/94	Dilution Factor	: 1.00
Date Received	: 9/14/94	Method	: 602
Date Extracted/Prepared	: 9/17/94	Matrix	: Water
Date Analyzed	: 9/17/94	Lab File No.	: BX2091708
		Method Blank No.	: MB091794

		Sample	
Compound Name	Cas Number	Concentration	MDL
		ug/L	ug/L
Benzene	71-43-2	Ú	0.4
Toluene	108-88-3	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylene (m/p + o)	1330-20-7	U	0.4
1,3,5-trimethylbenzene	108-67-8	U	0.4
1,2,4-trimethylbenzene	95-63-6	U	0.4
1,2,3-trimethylbenzene	526-73-8	U	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 103% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

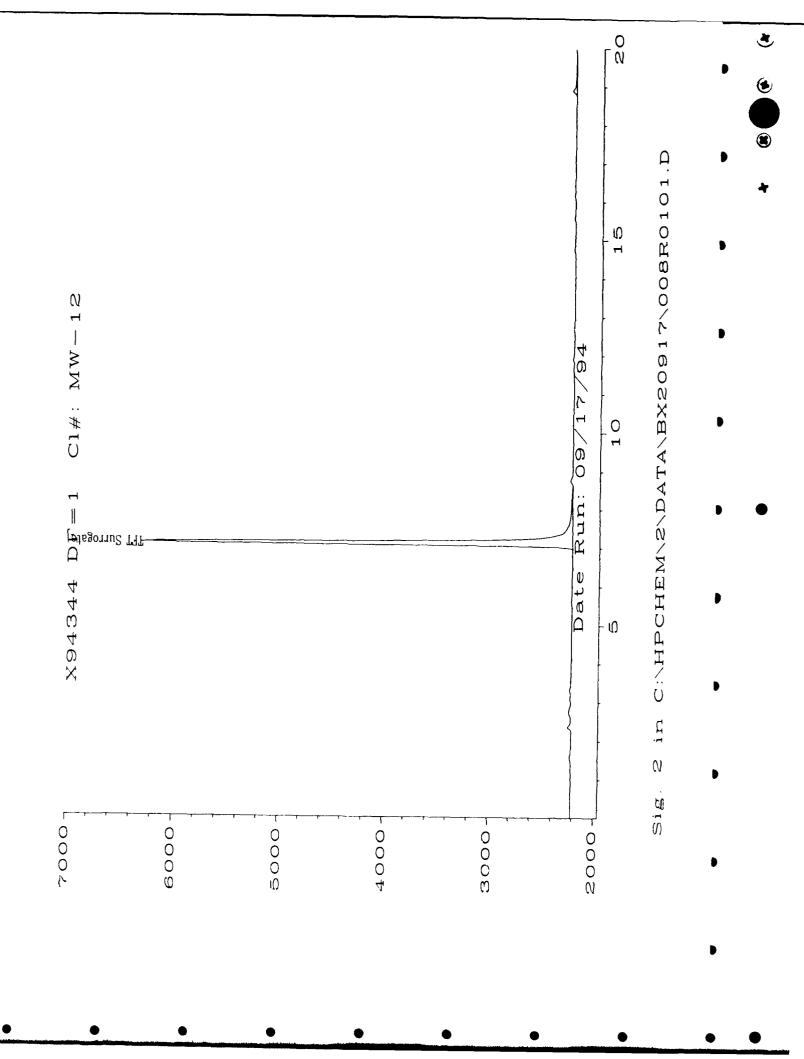
B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

lvst

Approved Approved



BTEX Data Report

Client Sample Number	: MW-11	Client Project No.	: Madison Ang
Lab Sample Number	: X94345	Lab Project No.	: 94-3495
Date Sampled	: 9/13/94	Dilution Factor	: 1.00
Date Received	: 9/14/94	Method	: 602
Date Extracted/Prepared	: 9/17/94	Matrix	: Water
Date Analyzed	: 9/17/94	Lab File No.	: BX2091709
		Method Blank No.	: MB091794

		Sample	
Compound Name	Cas Number	Concentration	MDL
		ug/L	ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylene (m/p + o)	1330-20-7	U	0.4
1,3,5-trimethylbenzene	108-67-8	U	0.4
1,2,4-trimethylbenzene	95-63-6	U	0.4
1,2,3-trimethylbenzene	526-73-8	U	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 111% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

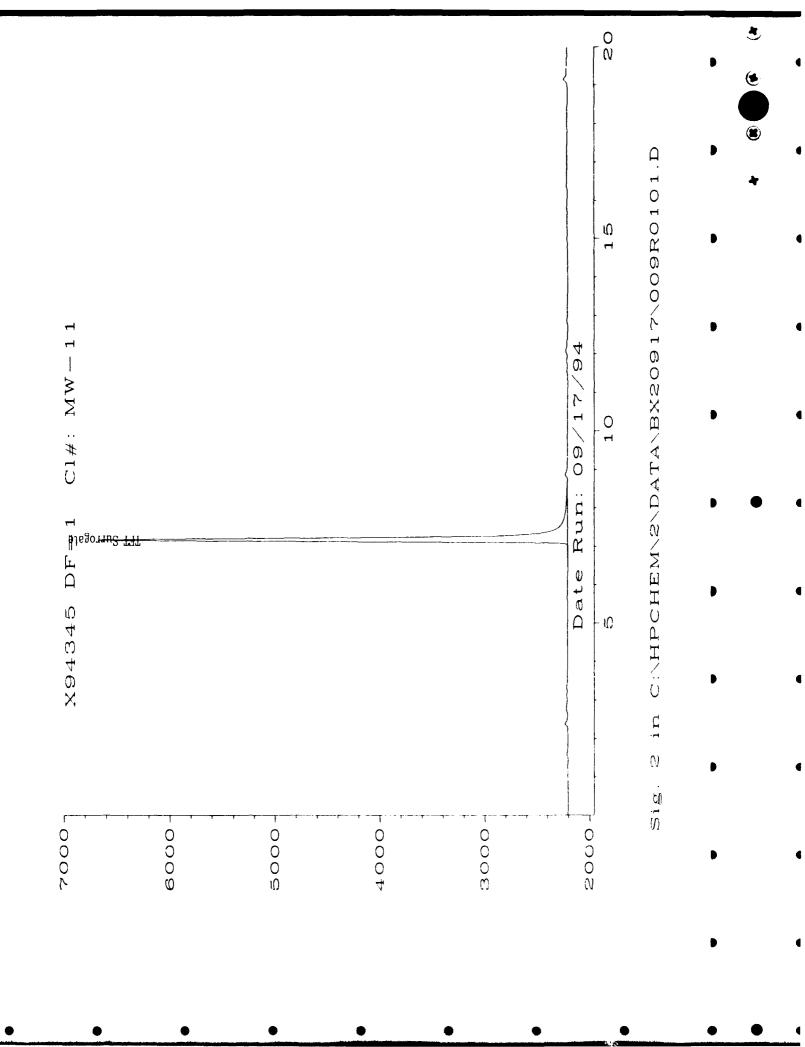
B = Compound found in blank and sample. Compare blank and sample data.

MDL ≈ Method Detection Limit.

NA = Not available.

Analyst

Approved Approved



BTEX Data Report

Client Sample Number	: MW-25	Client Project No.	: Madison Ang
Lab Sample Number	: X94346	Lab Project No.	: 94-3495
Date Sampled	: 9/13/94	Dilution Factor	: 1.00
Date Received	: 9/14/94	Method	: 602
Date Extracted/Prepared	: 9/17/94	Matrix	: Water
Date Analyzed	: 9/17/94	Lab File No.	: BX2091710
-		Method Blank No.	: MB091794

		Sample	
Compound Name	Cas Number	Concentration	MDL
·		ug/L	ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylene (m/p + o)	1330-20-7	U	0.4
1,3,5-trimethylbenzene	108-67-8	U	0.4
1,2,4-trimethylbenzene	95-63-6	U	0.4
1,2,3-trimethylbenzene	526-73-8	U	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 108% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

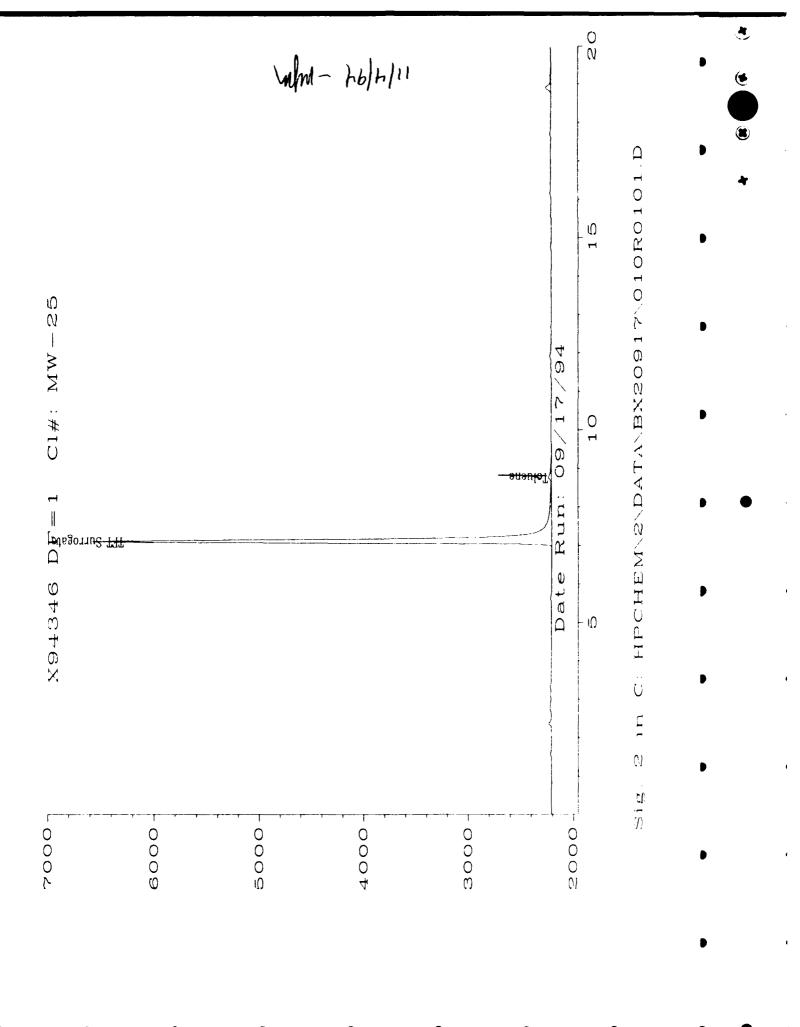
B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

Analyst

Approved Approved



BTEX Data Report

Client Sample Number	: MW-UNK	Client Project No.	: Madison Ang
Lab Sample Number	: X94347	Lab Project No.	: 94-3495
Date Sampled	: 9/13/94	Dilution Factor	: 1.00
Date Received	: 9/14/94	Method	: 602
Date Extracted/Prepared	: 9/17/94	Matrix	: Water
Date Analyzed	: 9/17/94	Lab File No.	: BX2091711
		Method Blank No.	: MB091794

Compound Name	Cas Number	Sample Concentration ug/L	MDL ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylene (m/p + o)	1330-20-7	U	0.4
	100.07.0		
1,3,5-trimethylbenzene	108-67-8	υ	0.4
1,2,4-trimethylbenzene	95-63-6	U	0.4
1,2,3-trimethylbenzene	526-73-8	U	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 104% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

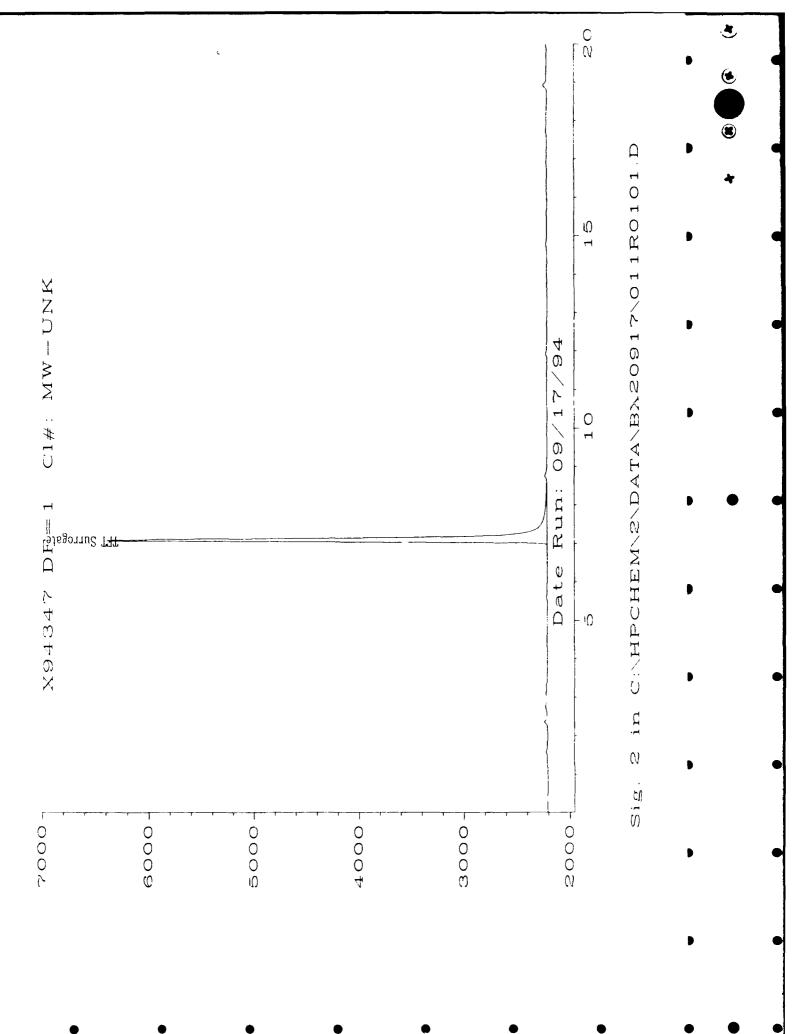
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

Analyst



BTEX Data Report

Client Cometa Number	. Trin Dlank	Ottor A Dueto A No	NA Pro A
Client Sample Number	: Trip Blank	Client Project No.	: Madison Ang
Lab Sample Number	: X94348	Lab Project No.	: 94-3495
Date Sampled	: 9/13/94	Dilution Factor	: 1.00
Date Received	: 9/14/94	Method	: 602
Date Extracted/Prepared	: 9/17/94	Matrix	: Water
Date Analyzed	: 9/18/94	Lab File No.	: BX2091719
		Method Blank No.	· MB091794

Compound Name	Cas Number	Sample Concentration ug/L	MDL ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	υ	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylene (m/p + o)	1330-20-7	υ	0.4
1,3,5-trimethylbenzene	108-67-8	U	0.4
1,2,4-trimethylbenzene	95-63-6	U	0.4
1,2,3-trimethylbenzene	526-73-8	U	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 99%
QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

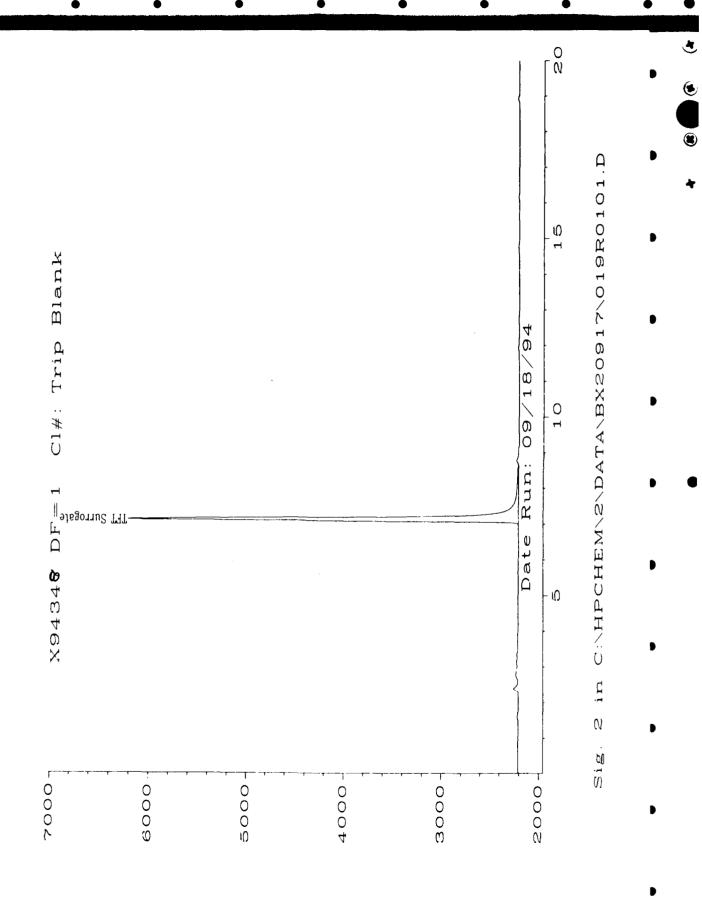
B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

Apalyst

Approved /



BTEX Data Report Method Blank Report

Method Blank Number Date Extracted/Prepared : MB091694 : 9/16/94

Client Project No. Lab Project No.

: Madison Ang

Date Analyzed

: 9/16/94

Dilution Factor

: 94-3495 : 1.00

Method Matrix

: 602 : Water

Lab File No.

: BX1091602

		Sample		
Compound Name	Cas Number	Concentration	MDL ug/L	
		ug/L		
Benzene	71-43-2	U	0.4	
Toluene	108-88-3	U	0.4	
Ethyl Benzene	100-41-4	U	0.4	
Total Xylene (m/p + o)	1330-20-7	U	0.4	

1,3,5-trimethylbenzene	108-67-8	U	0.4
1,2,4-trimethylbenzene	95-63-6	U	0.4
1,2,3-trimethylbenzene	526-73-8	U	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Note: High surrogate recovery due to increased sensitivity of initial runs.

Surrogate Recovery:

a,a,a,-Trifluorotoluene 128% QC Reporting 1 imits : 77%-116%

QUALIFIERS:

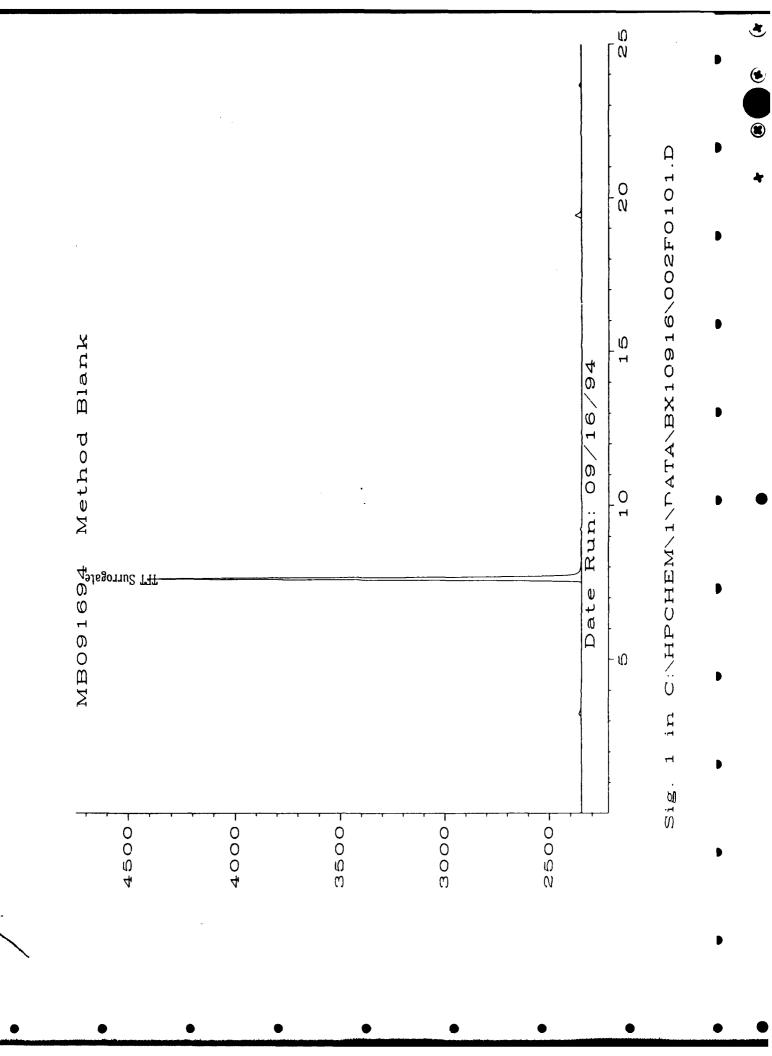
E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.



BTEX Data Report Method Blank Report

Method Blank Number

: MB091794

Client Project No.

: Madison Ang

Date Extracted/Prepared

: 9/17/94

Lab Project No.

: 94-3495

Date Analyzed

: 9/17/94

Dilution Factor

: 1.00

Method

: 602

Matrix

: Water

Lab File No.

: BX2091703

0.4

	Sample					
Compound Name	Cas Number	Concentration	MDL			
		ug/L	ug/L			
Benzene	71-43-2	U	0.4			
Toluene	108-88-3	U	0.4			
Ethyl Benzene	100-41-4	U	0.4			
Total Xylene (m/p + o)	1330-20-7	U	0.4			
1,3,5-trimethylbenzene	108-67-8	U	0.4			
1,2,4-trimethylbenzene	95-63-6	U	0.4			

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

1,2,3-trimethylbenzene

111%

526-73-8

QC Reporting Limits

: 77%-116%

QUALIFIERS:

E = Extrapolated value

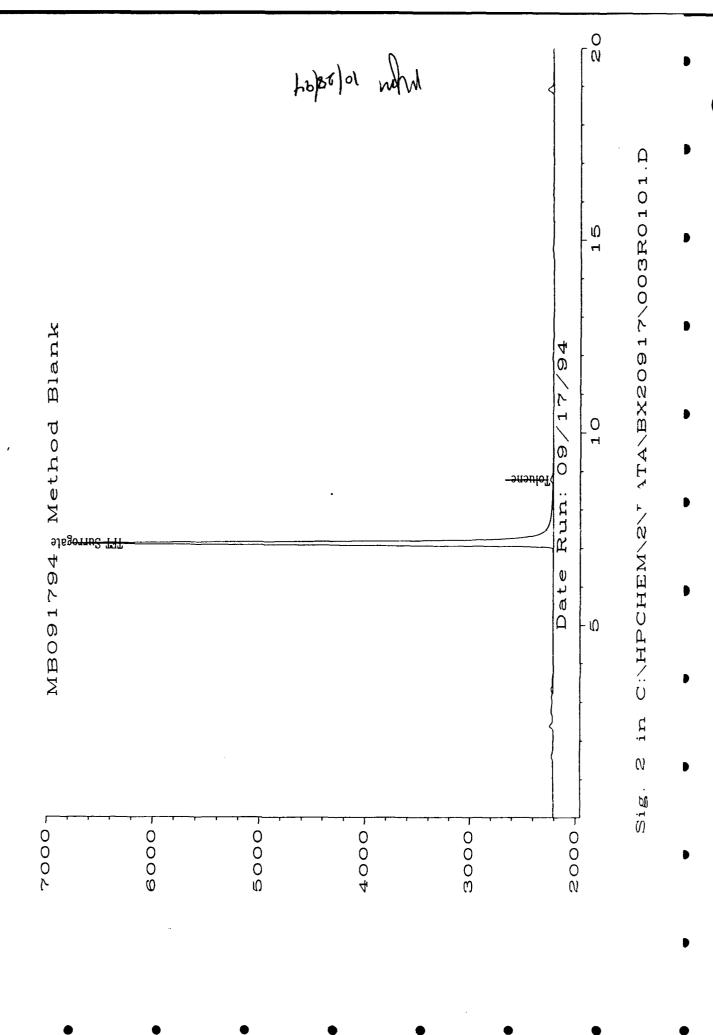
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

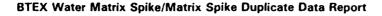
MDL = Method Detection Limit.

NA = Not available.

U



Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021



Client Sample No. . MW-16 Client Project No. : Madison Ang Lab Project No. : 94-3495 Lab Sample No. : X94342 **Date Sampled** : 9/13/94 EPA Method No. : 602 **Date Received** Matrix : Water : 9/14/94

Date Prepared: 9/16/94Lab File Number(s): BX1091621,22Date Analyzed: 9/17/94Method Blank: MB091694

	Spike	Sample	MS		σc
Compound	Added	Concentration Concentrati	Concentration	MS	Limits
	(ug/L)	(ug/L)	(ug/L)	%REC	%REC
Benzene	20	5.1	18.6	67.5	65-121
Toluene	20	0	13.8	69	69-117
Ethyl Benzene	20	0	13.9	69.5	68-118
m/p-Xylene	20	2.2	16.3	70.5	66-116
o-Xylene	20	0	13.8	69*	73-117
1,3,5-TMB	20	0	13.4	67	65-121
1,2,4-TMB	20	2.4	16.3	69.5	65-121
1,2,3-TMB	20	0.4	12.7	61.5*	65-121

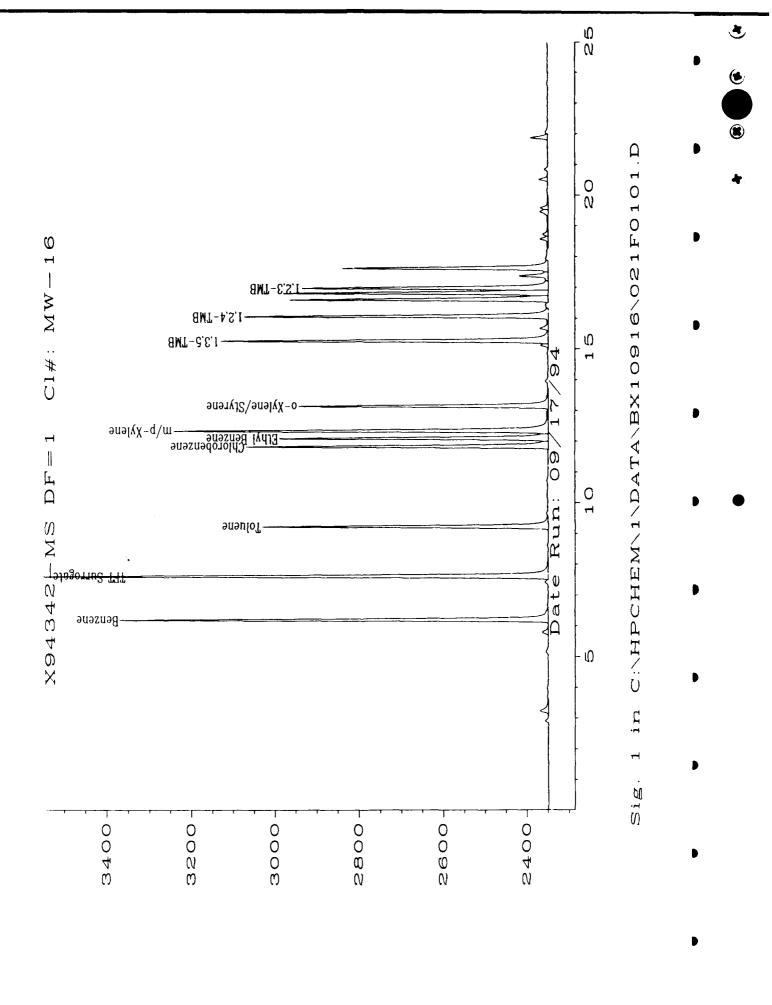
	Spike	MSD				C
Compound	Added	Concentration	MS	RPD	Lie	nits
	(ug/L)	(ug/L)	%REC		RPD	%REC
Benzene	20	18.9	69	2.2	17.4	65-121
Toluene	20	13.9	69.5	0.7	15.8	69-117
Ethyl Benzene	20	14	70	0.7	11.9	68-118
m/p-Xylene	20	16.3	70.5	0.0	15.4	66-116
o-Xylene	20	13.9	69.5*	0.7	13.2	73-117
1,3,5-TMB	20	13.8	69	2.9	17.4	65-121
1,2,4-TMB	20	16.8	72	3.5	17.4	65-121
1,2,3-TMB	20	13.2	64*	4.0	17.4	65-121

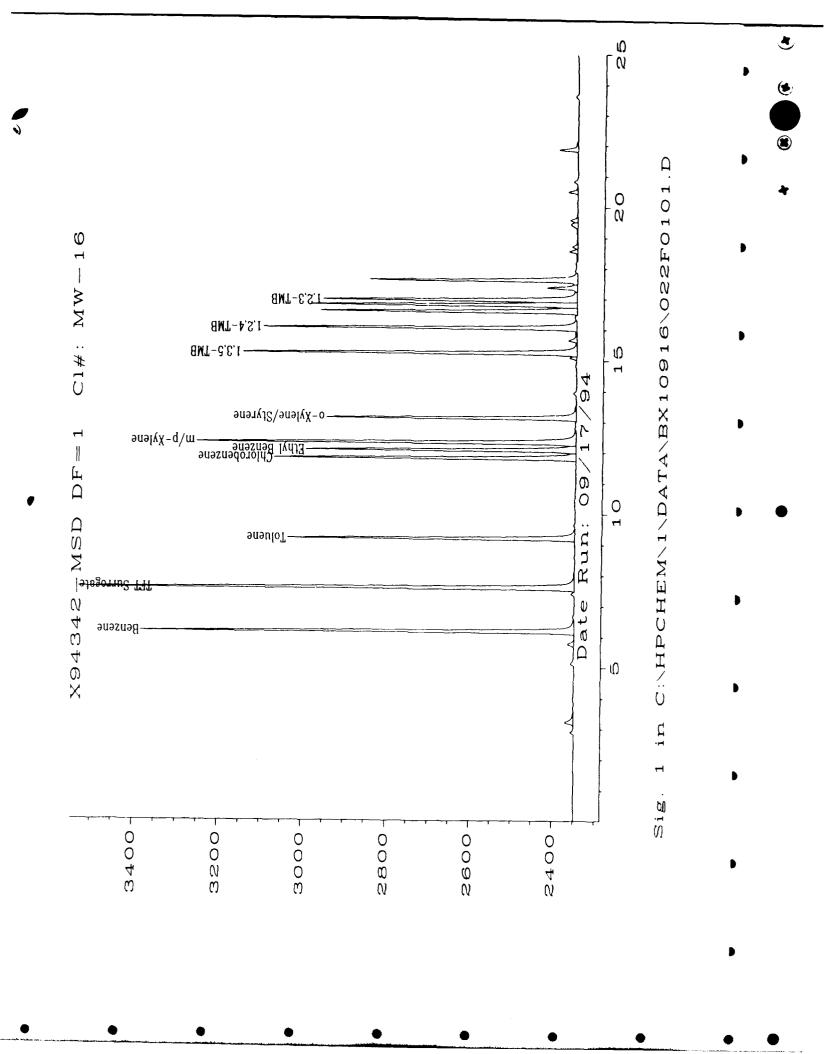
#	=	٧	alues	outside	of	aс	limits.

RPD: 0 out of (8) outside limits.

Spike Recovery: 4 out of (16) outside limits.

Comments: CJC





BTEX Data Report Laboratory Control Sample (LCS)

LCS Number

: LCS091694

Client Project No.

: Madison ANG

Date Extracted/Prepared

: 9/16/94

Lab Project No.

: 94-3495

Date Analyzed

: 9/16/94

Dilution Factor

: 1.00

Method

: 8020

Matrix

: Water

Lab File No.

: BX2091613

		LCS	
Compound Name	Cas Number	Concentration	QC Limit
		ug/L	ug/L
Benzene	71-43-2	28	29-47
Toluene	108-88-3	28	30-42
Ethyl Benzene	100-41-4	29	31-43
m/p-Xylene	NA	29	31-42
o-Xylene	95-47-6	30	31-42
Chlorobenzene	108-90-7	NA	NA
1,3,5-trimethylbenzene	108-67-8	NA	NA
1,2,4-trimethylbenzene	95-63-6	NA	NA
1,2,3-trimethylbenzene	526-73-8	NA	NA

Note: Total Xylene consist of three isomers, two of which co-elute. The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

83%

QC Reporting Limits

: 77%-116%

QUALIFIERS:

E = Extrapolated value

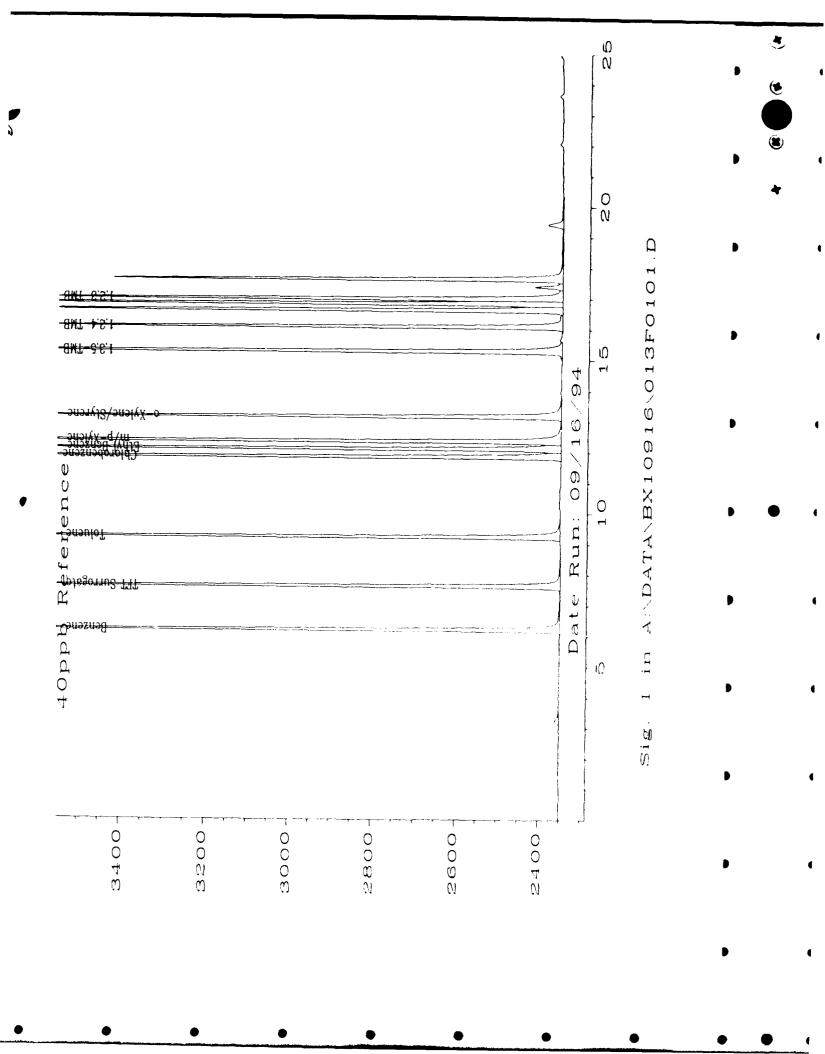
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14

NA ≈ Not available.



BTEX Data Report Laboratory Control Sample (LCS)

LCS Number : LCS091794 Client Project No.

: Madison Ang

Date Extracted/Prepared Date Analyzed

: 9/17/94 : 9/17/94

Lab Project No.

: 94-3495

Dilution Factor Method

: 1.00

Matrix

: 8020

: Water

Lab File No.

: BX2091713

LCS

	LOS				
Compound Name	Cas Number	Concentration	QC Limit		
		ug/L	ug/L		
Benzene	71-43-2	28	29-47		
Toluene	108-88-3	29	30-42		
Ethyl Benzene	100-41-4	31	31-43		
m/p-Xylene	NA	31	31-42		
o-Xylene	95-47-6	31	31-42		
1,3,5-trimethylbenzene	108-67-8	30	NA		
1,2,4-trimethylbenzene	95-63-6	29	NA		
1,2,3-trimethylbenzene	526-73-8	34	NA		

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

84%

QC Reporting Limits

: 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

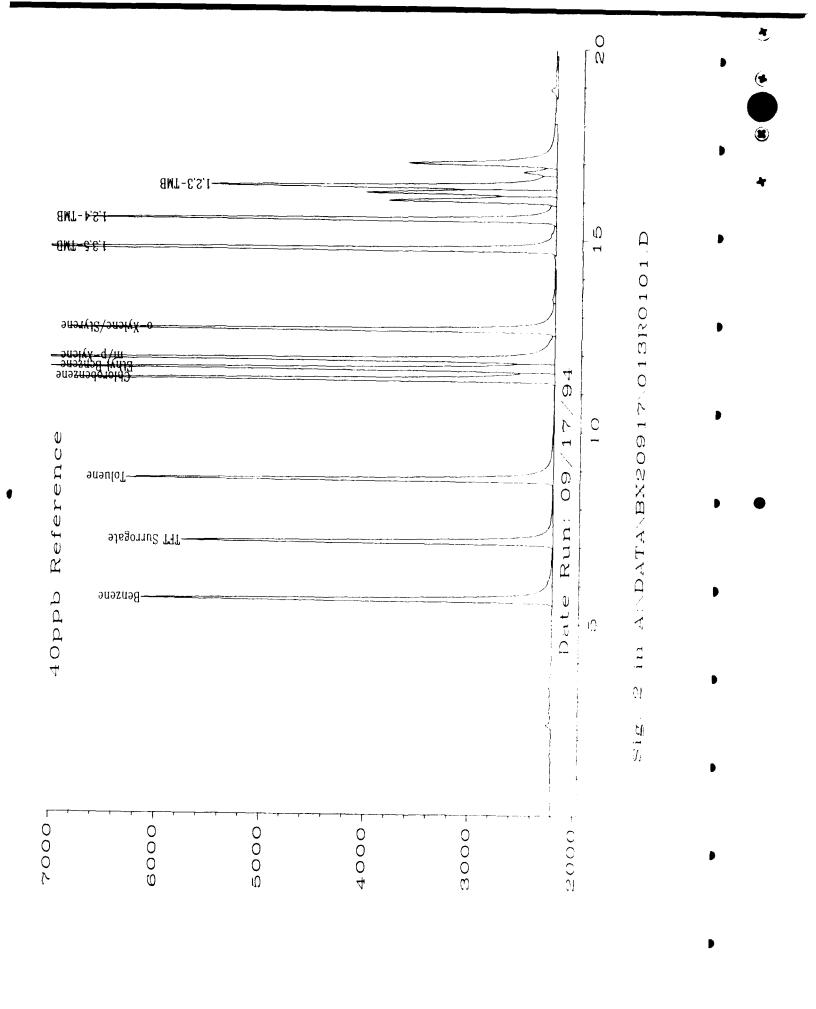
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

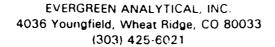
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000, 14.

NA = Not available

1200

Analyst







TOTAL VOLATILE HYDROCARBONS (TVH)

Date Sampled

: 9/13/94

Client Project Number

: Madison Ang

Date Received

: 9/14/94

Lab Project Number

: 94-3495

Date Prepared

: 9/20,22/94

Matrix

: Water

Date Analyzed

: 9/20,21,22,23/94

Method Number

: 5030/Mod.8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TVH mg/L	MDL mg/L
MB092094	Method Blank	100%	U	0.1
X94343	MW-13	85%	U	0.1
X94344	MW-12	79%	U	0.1
X94345	MW-11	74%	υ	0.1
X94346	MW-25	89%	U	0.1
X94347	MW-UNK	87%	U	0.1
MB092294	Method Blank	100%	υ	0.1
X94342	MW-16	88%	U	0.1

QUALIFIERS

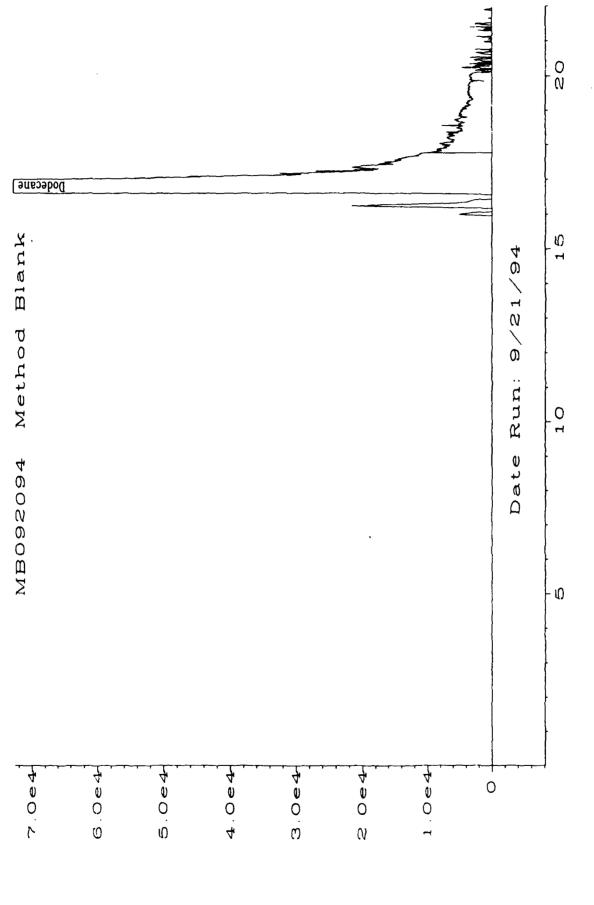
U = TVH analyzed for but not detected.

B = TVH found in blank as well as sample (blank data should be compared).

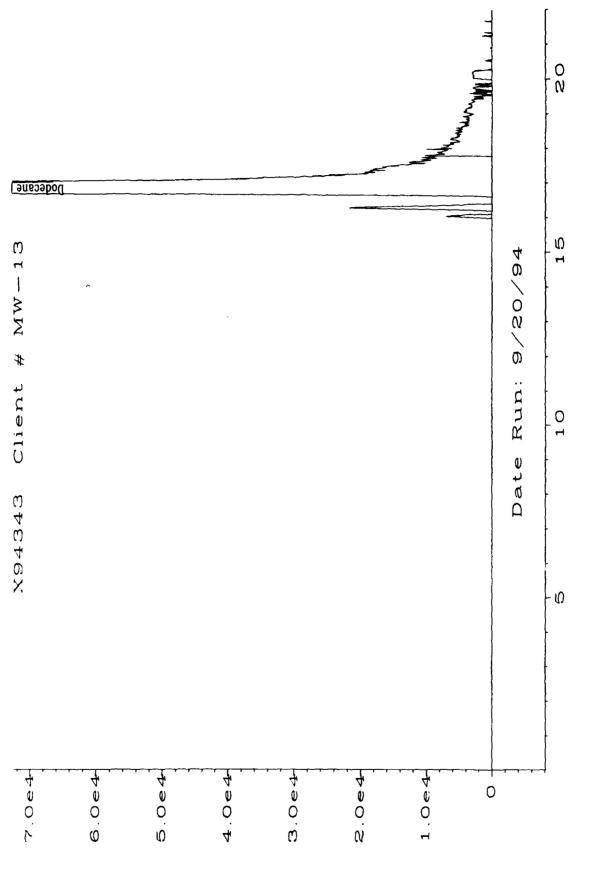
E = Extrapolated value.

MDL = Method Detection Limit

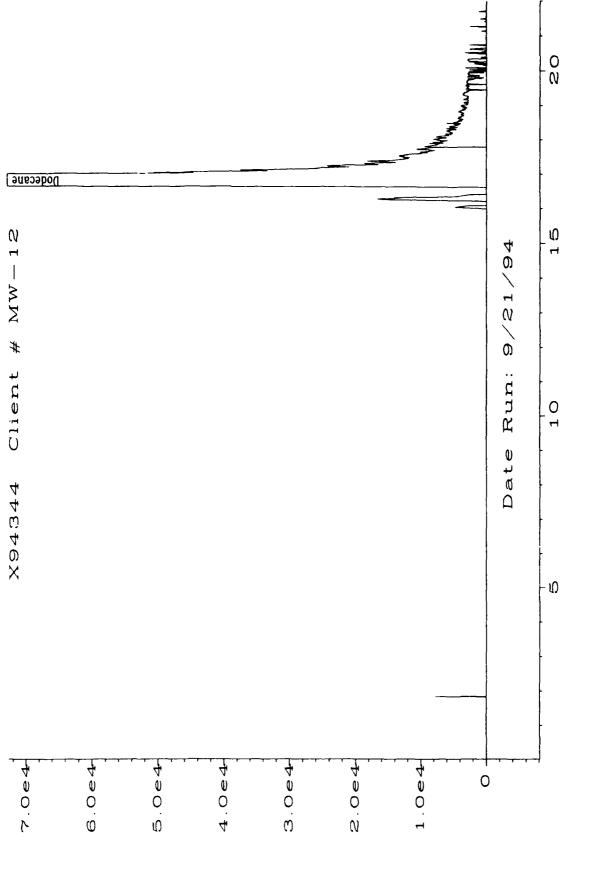
Analyst Lehans



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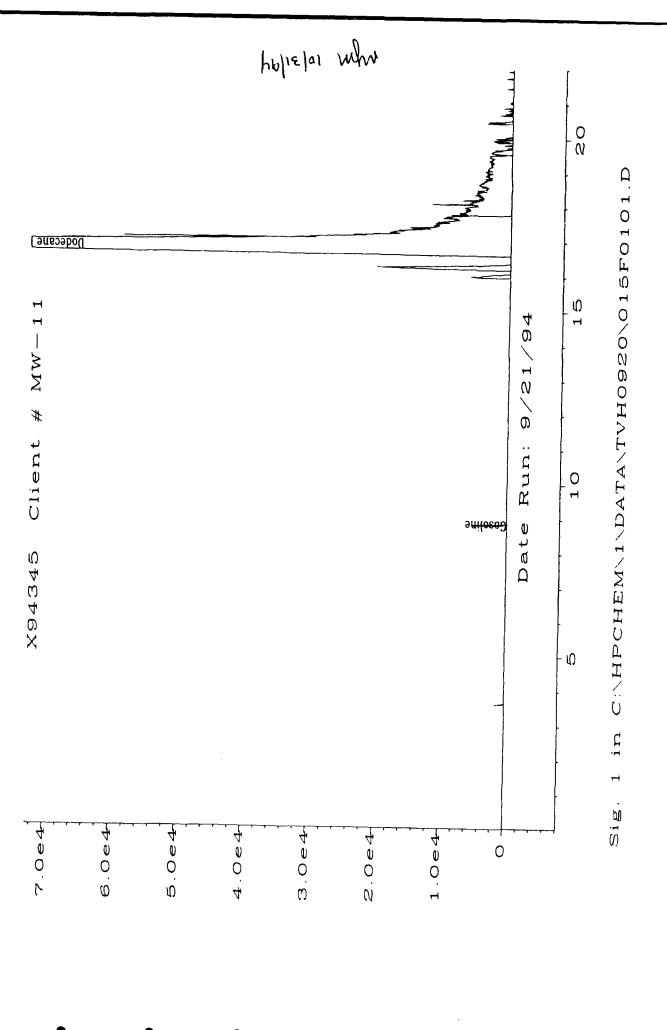


in C:\HPCHEM\1\DATA\TVH0920\014F0101.D Sig.

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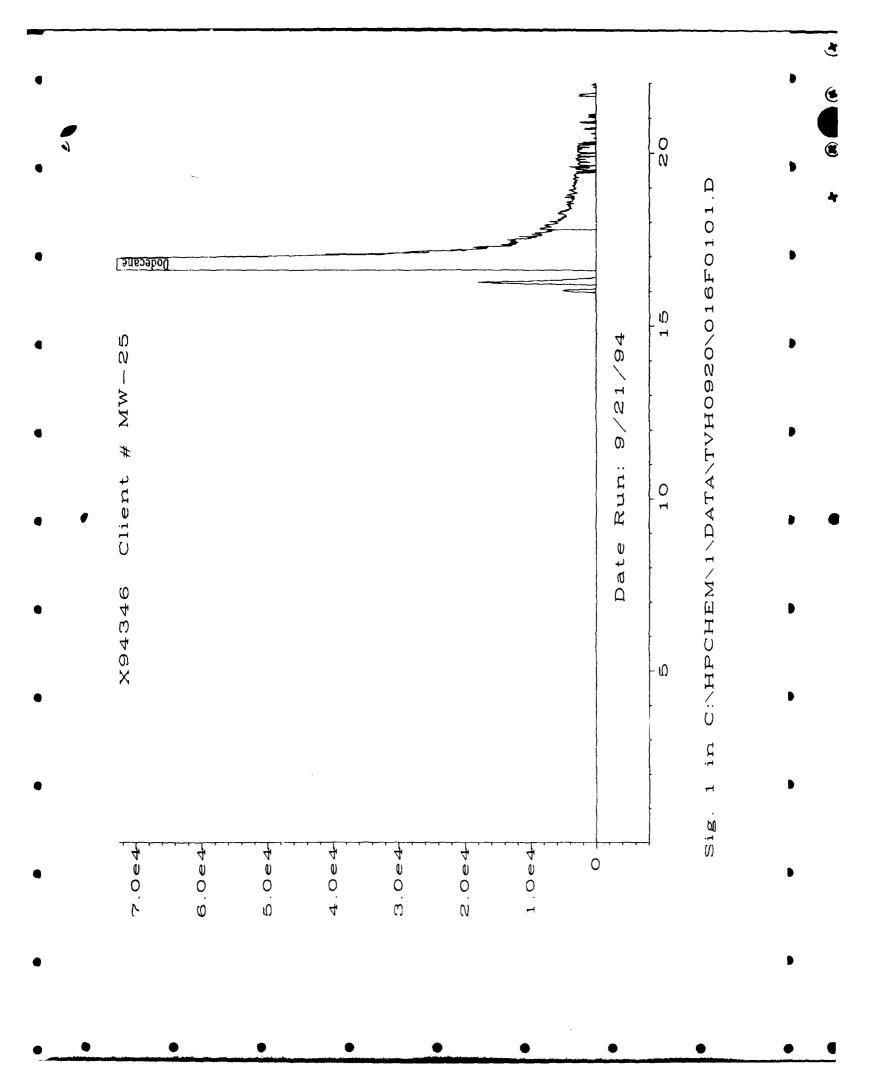
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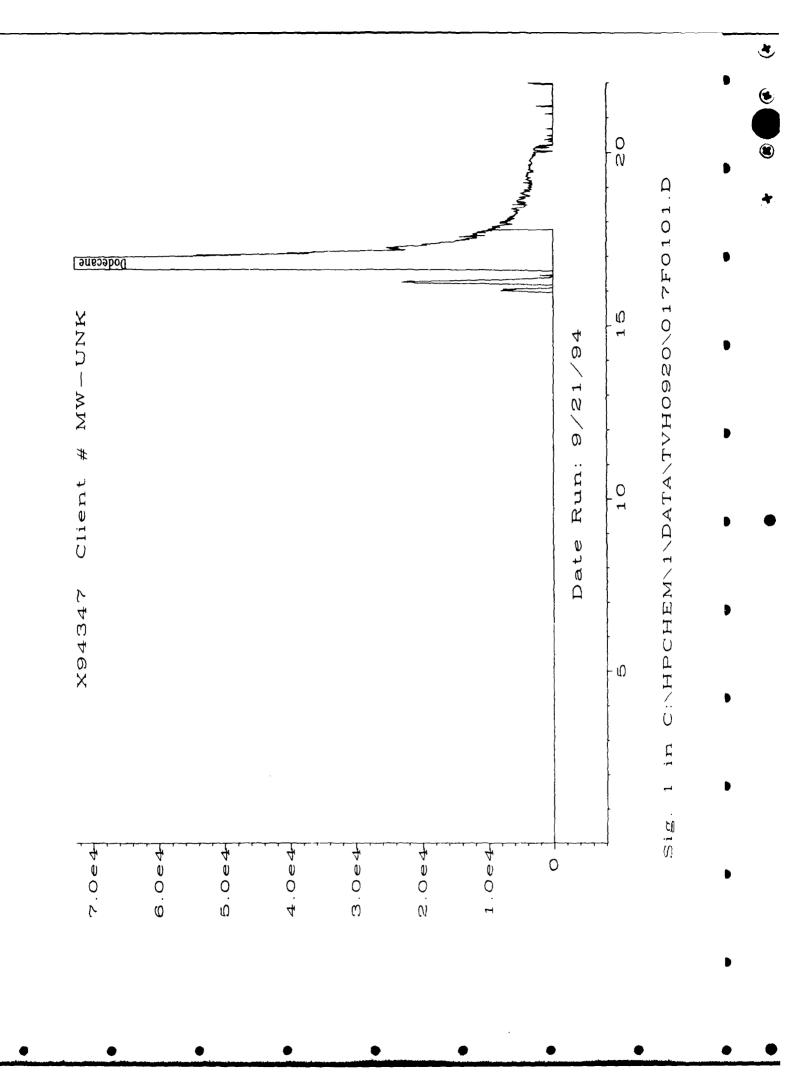
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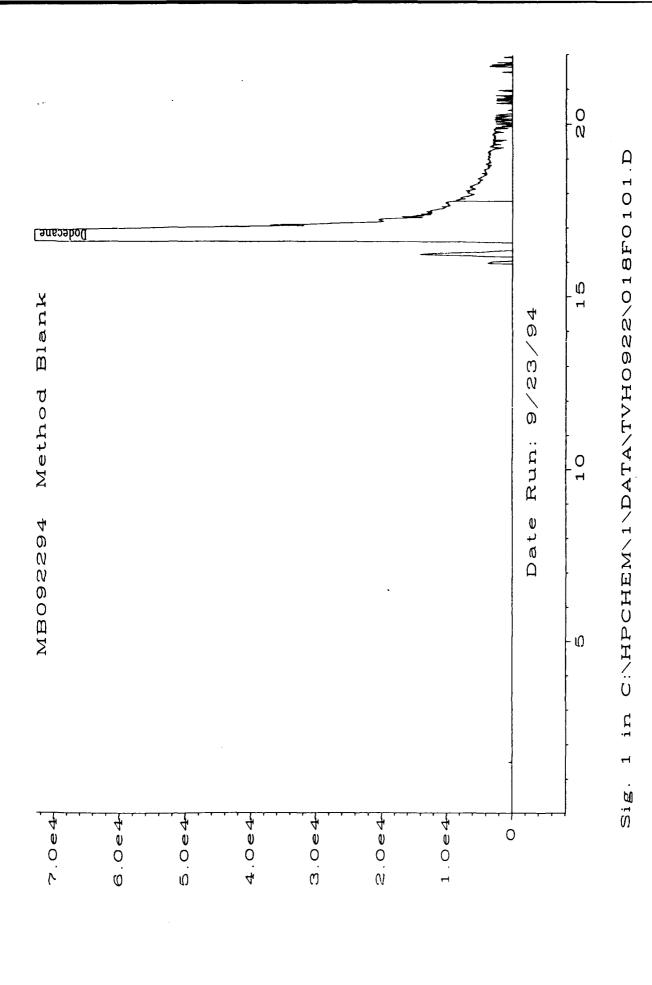


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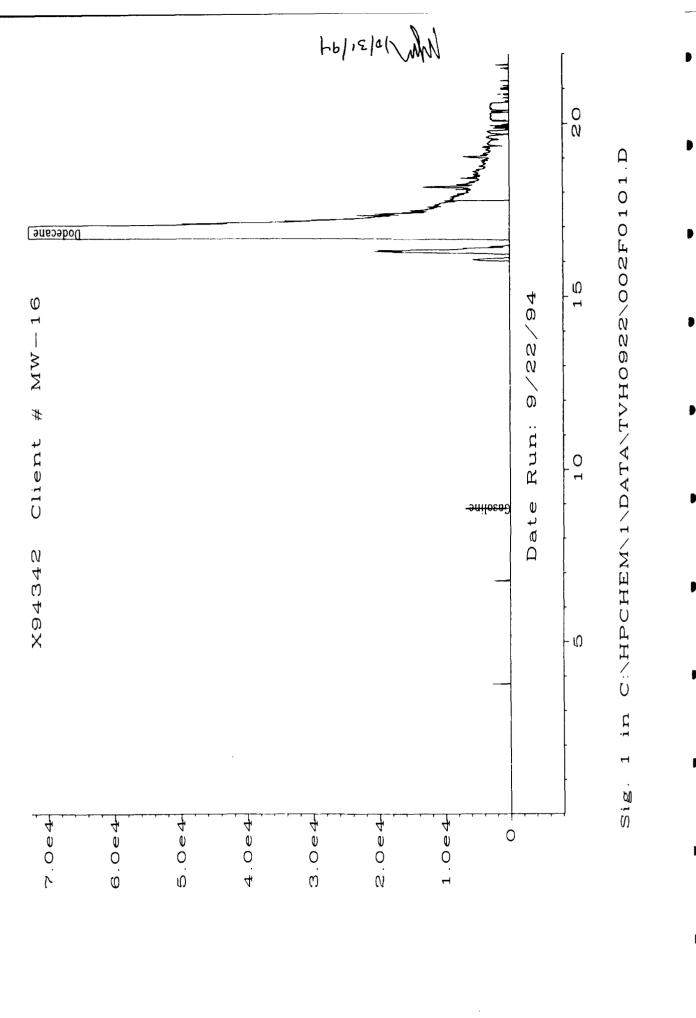
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LCS Number

: LCS092094

Client Project Number

: Madison Ang

Date Prepared Date Analyzed

: 9/21/94 : 9/21/94 Lab Project Number Matrix

: 94-3495 : Water

Sequence Number

: TVH0920

Method Number

: 3500/Mod. 8015

Compound Name Theoretical Concentration

LCS Concentration mg/ L

QC Limit mg/L

Gasoline

5

mg/L

6.3

3.5-6.5

QUALIFIERS

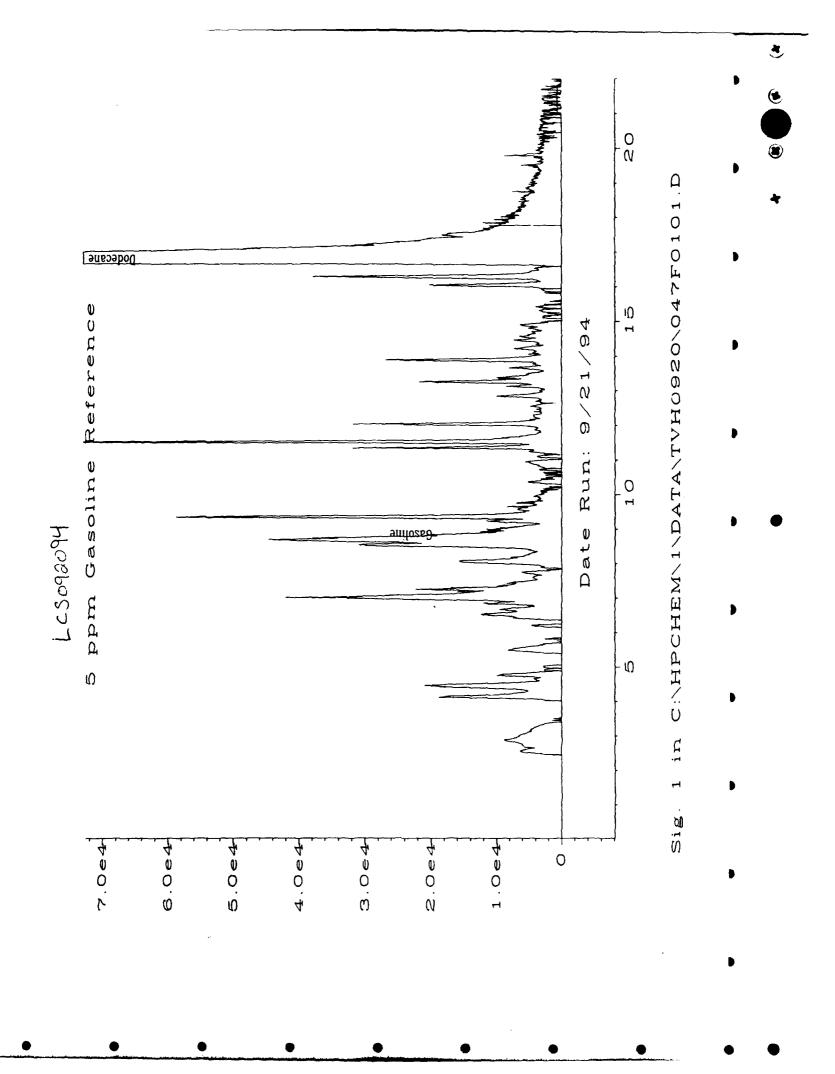
U = TEH analyzed for but not detected.

B = TEH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

NA = Not Available.

Analyst



TOTAL VOLATILE HYDROCARBONS (TVH) Laboratory Control Sample (LCS)

LCS Number

: LCS092294

Client Project Number

: Madison Ang

Date Prepared

: 9/23/94

Lab Project Number

: 94-3495

Date Analyzed

: 9/23/94

Matrix

: Water

Sequence Number

: TVH0922

Method Number

: 3500/Mod. 8015

 Compound Name
 Theoretical Concentration mg/L
 Concentration mg/L
 QC Limit mg/L

 Gasoline
 5
 6
 3.5-6.5

QUALIFIERS

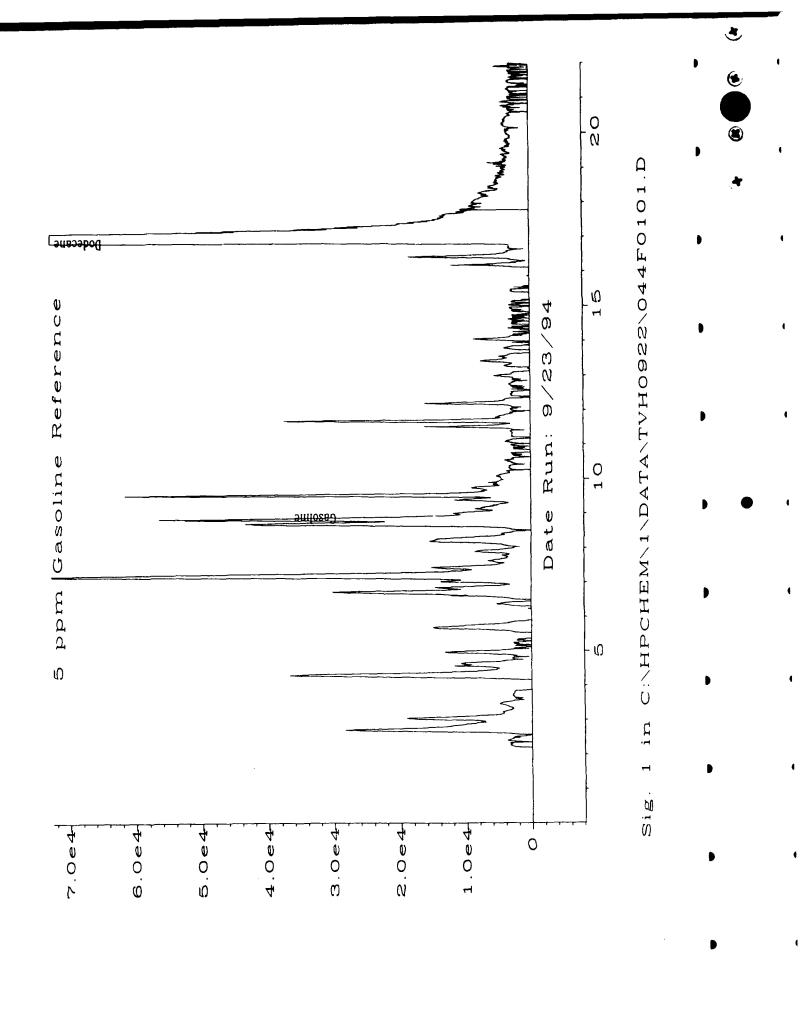
U = TEH analyzed for but not detected.

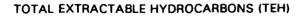
B = TEH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

NA = Not Available.

Analyst





Date Sampled
Date Received

: 9/13/94: 9/14/94

Client Project Number
Lab Project Number

: Madison Ang

Date Prepared

: 9/15/94

Matrix

: 94-3495

Matrix

: Water

Date Analyzed

: 9/21/94

Method Number

: 3500/Mod.8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TEH mg/L	MDL mg/L
WB091594	Water Method Blank	101%	υ	0.5
X94342	MW-16	84%	U	0.5
X94343	MW-13	95%	U	0.5
X94344	MW-12	106%	U	0.5
X94345	MW-11	101%	U	0.5
X94346	MW-25	96%	U	0.5

QUALIFIERS

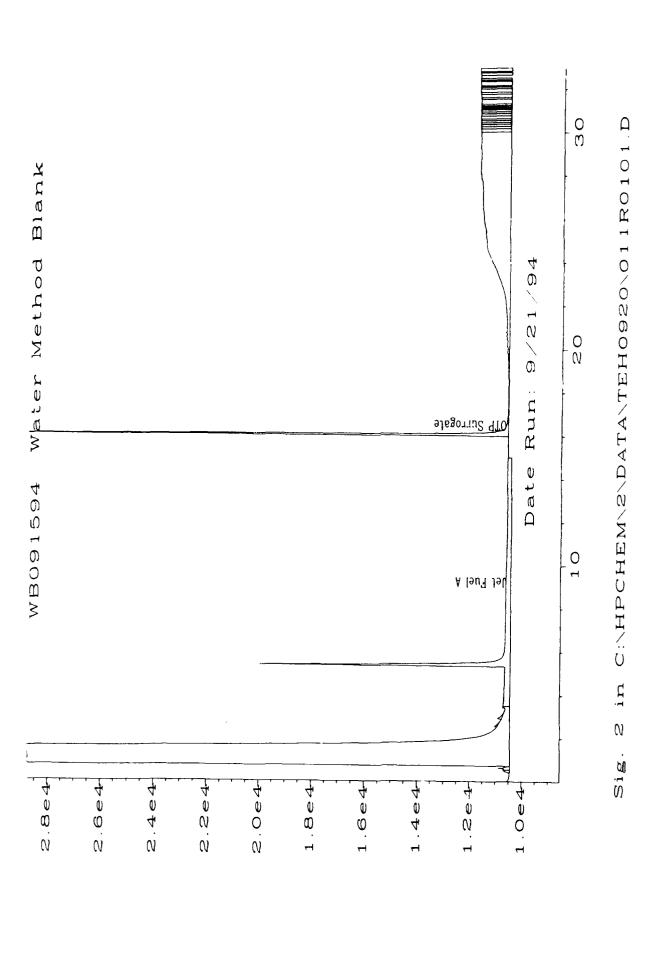
U = TEH analyzed for but not detected.

B = TEH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

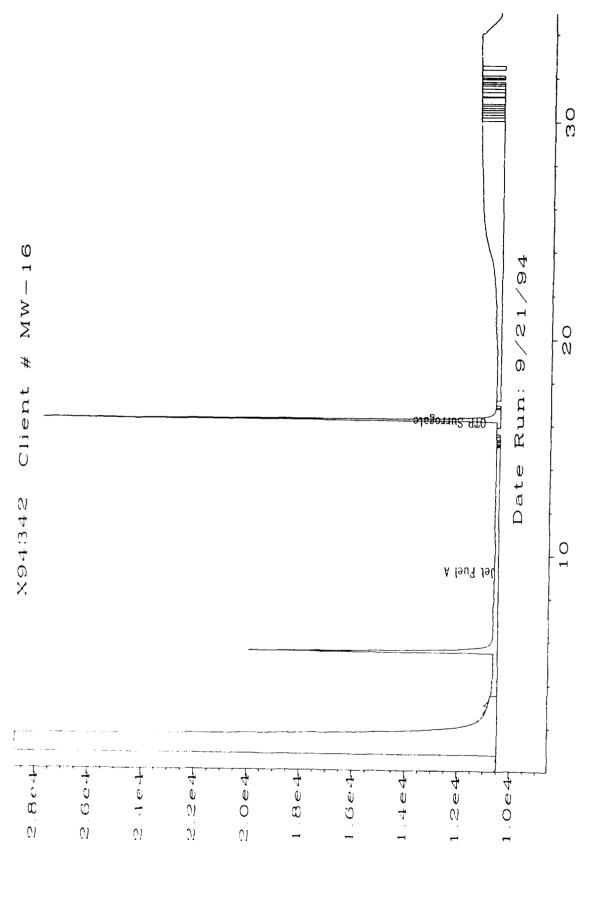
MDL = Method Detection Limit

Analyst

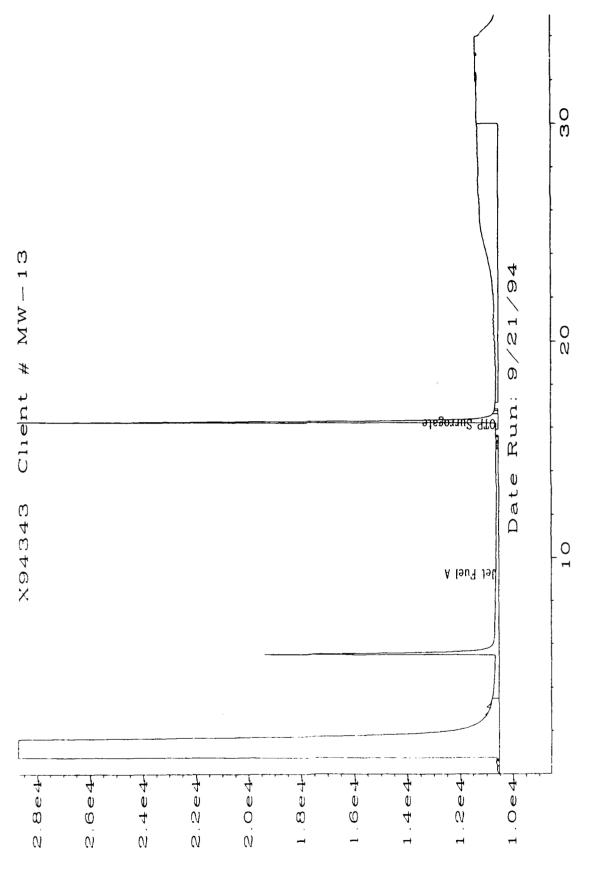


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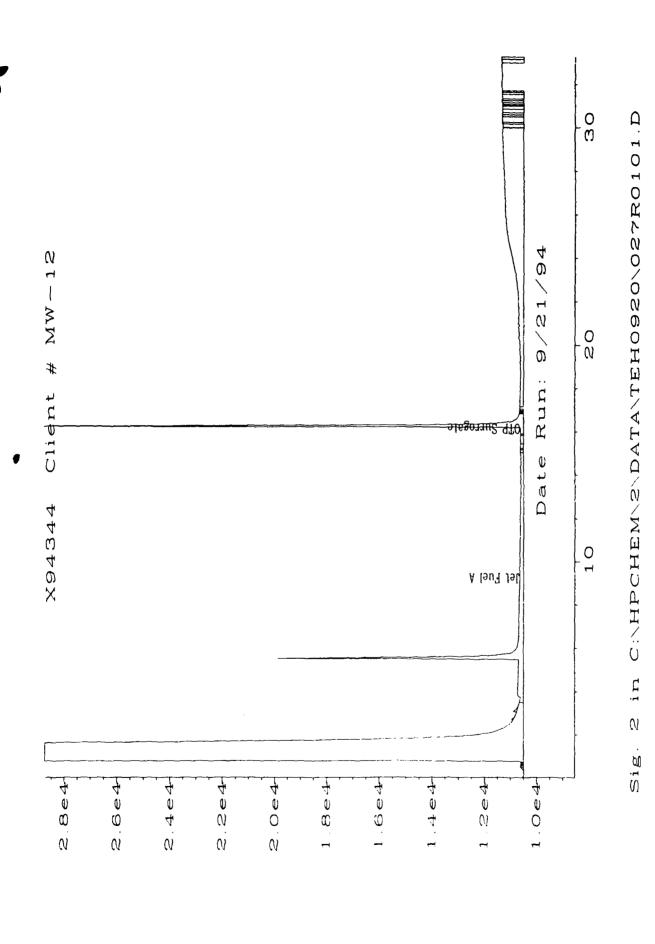
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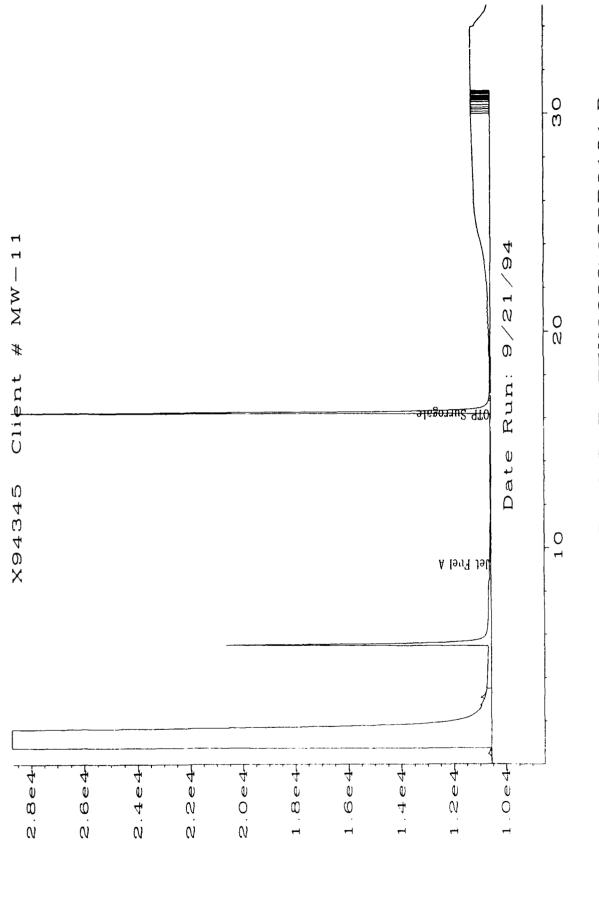
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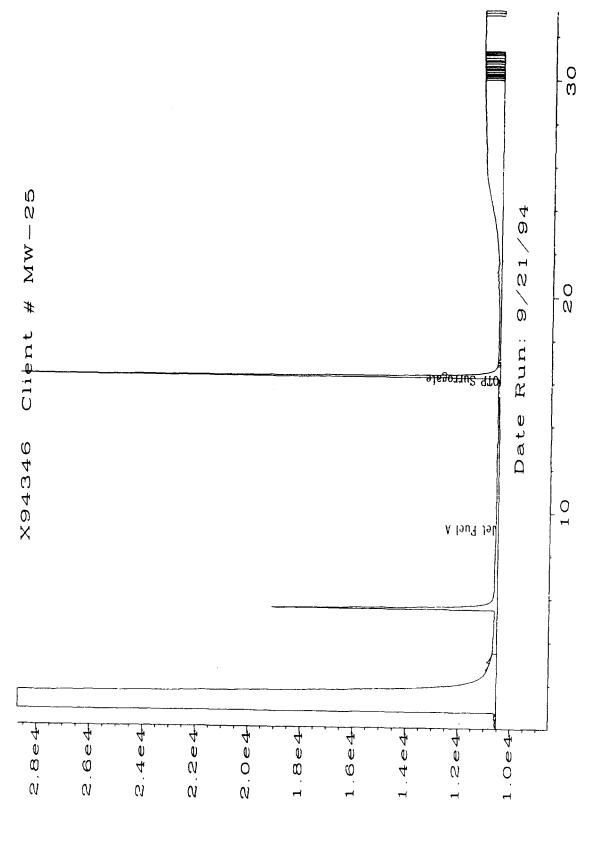
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TOTAL EXTRACTABLE HYDROCARBONS (TEH) Laboratory Control Sample (LCS)

LCS Number

: LCS092094

Client Project Number

: Madison Ang

Date Prepared Date Analyzed

: 9/21/94 : 9/22/94 Lab Project Number Matrix

: 94-3495 : Water

Sequence Number

: TEH0920

Method Number

: 3500/Mod. 8015

		LCS	
Compound Name	Theoretical Concentrationmg/L_	Concentration mg/ L	QC Limit mg/L
Jet Fuel A	2000	2706	1200-2800

QUALIFIERS

U = TEH analyzed for but not detected.

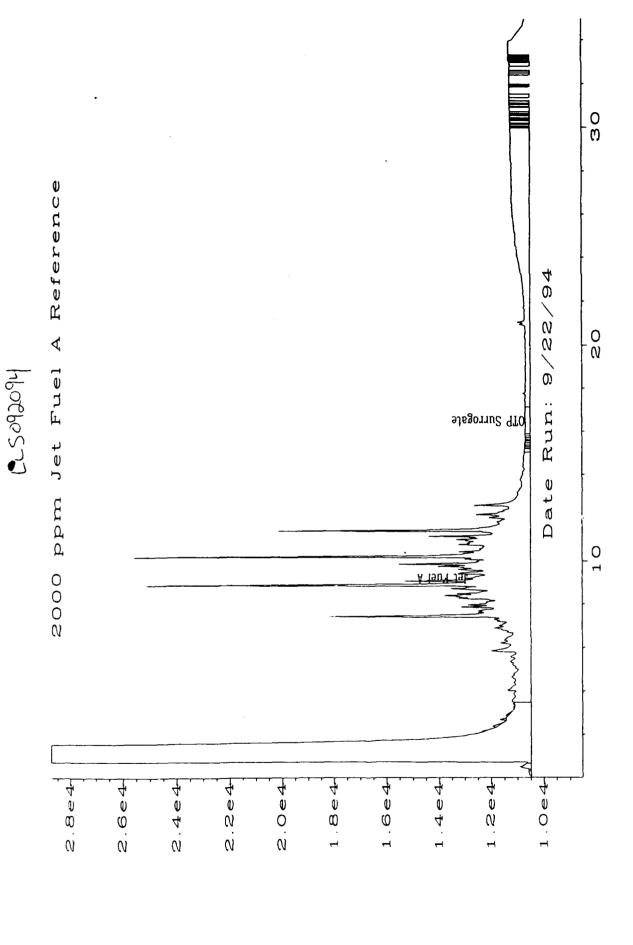
B = TEH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

NA = Not Available.

Analyst

Approved



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Methane Data Report

Evergreen Sample #	Client Sample #	Matrix	Concentration mg/L	EDL* mg/L
MB092794	Method Blank	Water	U	0.001 (DF=1)
x94342	MW-16	Water	0.21	0.001 (DF=1)
x 94343	MW-13	Water	υ	0.001 (DF=1)
x94344	MW-12	Water	υ	0.001 (DF=1)
x94345	MW-11	Water	τ	0.001 (DF=1)
x 94346	MW-25	Water	υ	0.001 (DF=1)
x94347	MW-UNK	Water	υ	0.001 (DF=1)

QUALIFIERS:

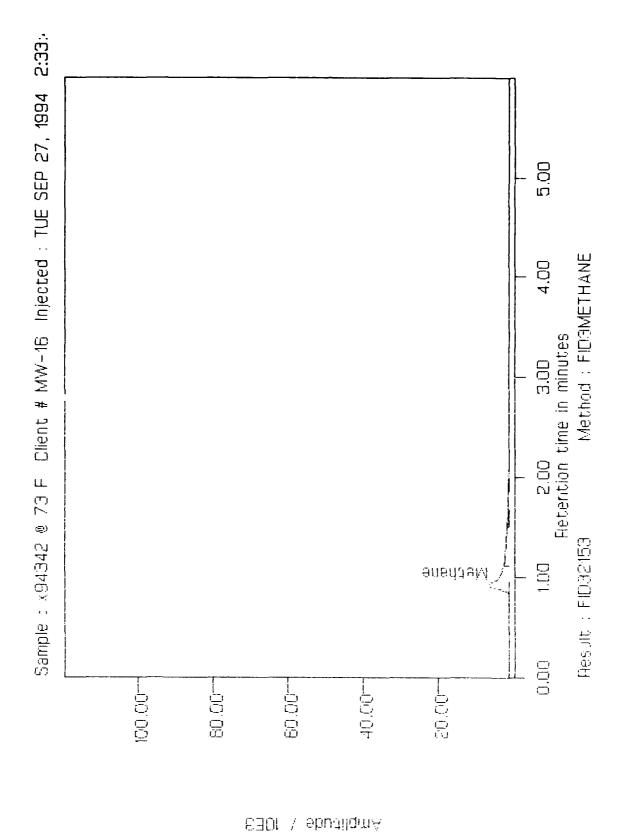
- U = Compound analyzed for, but not detected above the Estimated Detection Limit.
- B = Compound also found in the blank, blank data should be compared.
- * = Indicates the Estimated Detection Limit.

E = Extrapolated value.

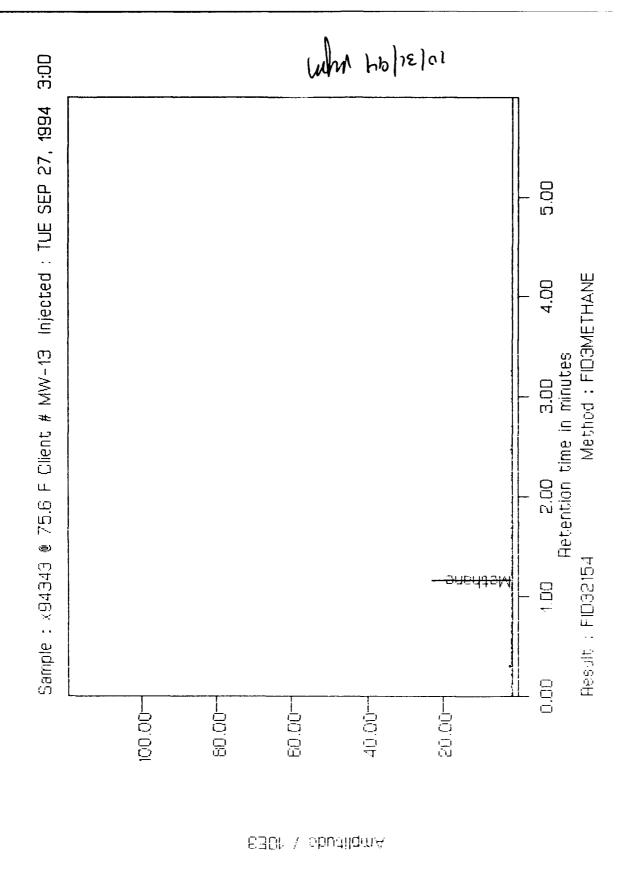
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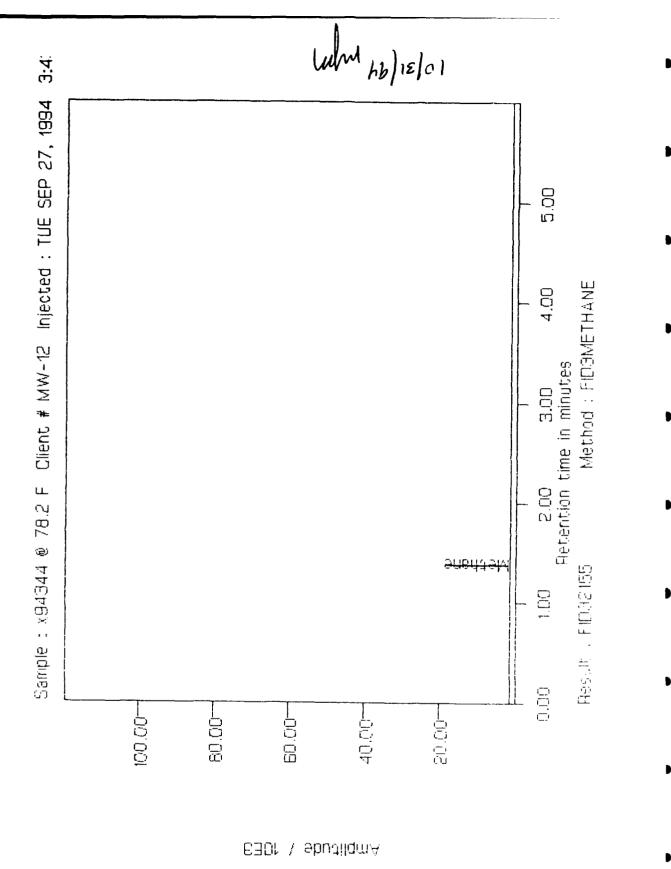


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<u>Anions</u>

Date Sampled :	9/13/94	Client Project ID.	:	Madison ANG
Date Received :	9/14/94	Lab Project No.	:	94-3495
Date Prepared :	9/15/94	Method	:	EPA 300.0
Date Analyzed :	9/15/94	Matrix	:	Water

Evergreen Sample #	Client Sample ID	Nitrite as N (mg/L)
X94342	MW-16	<0.076
X94343	MW-13	<0.076
X94344	MW-12	<0.076
X94345	MW-11	<0.076
X94346	MW-25	<0.076
X94347	MW-UNK	<0.076
X94347 Dup	MW-UNK Dup	<0.076
Method Blank	x 9/15/94	<0.076

Quality Assurance *

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% <u>Recovery</u>
X94342 Matrix Spike	MW-16	10.0	<0.25	9.44	94.4
X94342 Matrix Spike Dup	MW-16	10.0	<0.25	9.06	90.6
MS/MSD	RPD				4.11
X94347/X94347	Dup RPD				NC

^{* =} Quality assurance results reported as nitrite (NO_2) .

NC = Not calculated because sample and/or duplicate result
 below detection limit.

yst Approved

Anions

Date Sampled :		Client Project ID.	Madison ANG
Date Received :	9/14/94	T - 1	94-3495
Date Prepared :		34	EPA 300.0
Date Analyzed :	9/15/94	Matrix	Water

Evergreen <u>Sample</u> #	Client <u>Sample ID</u>	Nitrate as N (mg/L)
X94342 X94343 X94344 X94345 X94346 X94347 X94347 Dup	MW-16 MW-13 MW-12 MW-11 MW-25 MW-UNK MW-UNK	<0.056 3.43 4.54 1.81 1.88 0.449 0.456
Method Blank	9/15/94	<0.056

Quality Assurance *

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X94342 Matrix Spike	MW-16	10.0	<0.25	9.30	93.0
X94342 Matrix Spike Dup	MW-16	10.0	<0.25	9.04	90.4
MS/MSD	RPD				2.84
X94347/X94347	Dup RPD				1.50

* = Quality assurance results reported as nitrate (NO_3) .

Analyst //

Approved

Anions

Date Sampled	:	9/13/94	Client Project ID.	:	Madison ANG
Date Received	:				94-3495
Date Prepared			Method	:	EPA 300.0
Date Analyzed	:	9/15/94	Matrix	:	Water

Evergreen	Client	
Sample #	<u>Sample ID</u>	Sulfate (mg/L)
X94342	MW-16	1.54
X94343	MW-13	9.11
X94344	MW - 12	17.7
X94345	MW-11	33.1
X94346	MW-25	32.2
X94347	MW – UNK	15.3
X94347 Dup	MW-UNK Dup	15.2
M - 4 2 - 3 - 52 - 3	0 / = 5 / 0 .	
Method Blank	c 9/15/94	<0.250

Quality Assurance

		Spike Amount <u>(mg/L)</u>	Sample Result <u>(mg/L)</u>	Spike Result <u>(mg/L)</u>	% <u>Recovery</u>
X94342 Matrix Spike	MW-16	10.0	1.54	10.5	90.0
X94342 Matrix Spike Dup	MW-16	11.0	1.54	10.2	86.3
MS/MSD	RPD				4.20
X94347/X94347	Dup RPD				0.65

Analyst

Approved

<u>Anions</u>

Date Sampled	:	9/13/94	Client Project ID.	:	Madison ANG
Date Received	:	9/14/94	Lab Project No.	:	94-3495
Date Prepared	:	9/15/94	Method	:	EPA 300.0
Date Analyzed	:	9/15/94	Matrix	:	Water

Evergree Sample #		Chloride (mg/L)
X94342	MW-16	34.8
X94343	MW-13	3.43
X94344	MW-12	12.6
X94345	MW-11	3.97
X94346	MW-25	3.42
X94347	MW - UNK	5.13
X94347 D	Dup MW-UNK Dup	5.18
Method B	slank 9/15/94	<0.250

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result <u>(mg/L)</u>	% Recovery
X94342 Matrix Spike	MW-16	10.0	34.8	45.0	101.8
X94342 Matrix Spike Dup	MW-16	10.0	34.8	45.3	104.3
MS/MSD	RPD				2.43
X94347/X94347	Dup RPD				0.97

Analyst

Approved

Miscellaneous Analyses

Date Sampled	:	9/13/94	Client Project ID.	:	Madison ANG
Date Received	:	9/14/94	Lab Project No.	:	94-3495
Date Prepared	:	9/16/94	Matrix	:	5.00 mgCaCO ₃ /L
Date Analyzed	:	9/16/94	Method	:	EPA 310.1

Evergreen <u>Sample #</u>	Client <u>Sample ID</u>	<u>Matrix</u>	Total Alkalinity _(mgCaCO3/L)
X94342	MW-16	Water	454
X94342 Dup	MW-16 Dup	Water	454
X94343	MW-13	Water	333
X94344	MW-12	Water	270
X94345	MW-11	Water	292
X94346	MW-25	Water	294
X94347	MW-Unk	Water	347
Method Blank	(9-16-94)		<5.00

Quality Assurance

	True Value (mgCaCO ₃ /L)	Result (mgCaCO ₃ /L)	% Recovery
Spex Reference Lot WP1290 Minerals	24.2	21.7	89.7
X94342/X94342 Dup RPD			0.0

Analyst /

Approved



LABORATORIES, INC.

Quality Analytical Services Since 1936 4630 Indiana Street • Golden, CO 80403

NON-CLP ANALYSIS RESULTS

Date:

10/26/94

rev01

Lab Name:

Huffman Labs

Client: Evergreen Analytical

Contact:

Sue Zeller

Contact: Mark Mensik

Sample Matrix:

soils

Huffman Lab #: 271294

Client L	ab Eler	nent/	Dilution	Results	Units	Prep	Analysis	Sample	Method	Instrument
Smp# ID	# Comp	ound	Factor			Date	Date	Size (g)	#	D
ELS-MW26-24 271294)1	TC	NA	1.43	%	NA	09/19/94	0.642	Leco CR12	#7
ELS-MW26-24 2712940)1	TC	NA	1.39	%	NA	09/19/94	1.299	Leco CR12	#7
ELS-MW26-24 2712940)1	СС	NA	1.01	%	NA	10/05/94	0.108	COU-02	#3
ELS-MW26-24 2712940)1	CC	NA	1.09	%	NA	10/05/94	0.071	COU-02	#3
ELS-MW26-24 2712940)1	тос	NA	0.42	%	NA	NA	NA	by calc	NA
ELS-MW26-24 2712940)1	TOC	NA	0.30	%	NA	NA	NA	by calc	NA

Samples analyzed and results reported on as as received basis.

Soil samples are not homogeneous.

TC detection limit = 0.05% CC detection limit = 0.02%

TOC detection limit = 0.05%

	Client	Lab	Element/	Dilution	Results	Units	Prep	Analysis	Sample	Method	Instrument
•	Smp#	ID#	Compound	Factor			Date	Date	Size (ml)	#	ID
	MW-UNK	27129402	DOC	NA	5.5	mg/L	NA	10/08/94	10	SM5310D	#6
	MW-9	27129403	DOC	NA	9.6	mg/L	NA	10/08/94	10	SM5310D	#6
	MW-9	27129403	DOC	NA	11.1	mg/L	NA	10/08/94	10	SM5310D	#6
	MW-10	27129404	DOC	NA	8.9	mg/L	NA	10/08/94	10	SM5310D	#6
	MW-13	27129405	DOC	NA	2.1	mg/L	NA	10/08/94	10	SM53100	#6
	MW-16	27129406	DOC	NA	38.0	mg/L	NA	10/08/94	10	SM53100	#6

TOC detection limit = 0.5 mg/L



LABORATORIES, INC.

Quality Analytical Services Since 1936 4630 Indiana Street • Golden, CO 80403

NON-CLP ANALYS S RESULTS LABORATORY CONTROL STANDARD

Date:

10/26/94

rev01

Client: Evergreen Analytical

Lab Name:

Huffman Labs

Contact: Mark Mensik

Contact:

Sue Zeller Huffman Lab #: 271294

LABORATORY CONTROL STANDARD

i i	Lab	Source	Element/	True	Found	% R	Units		Method	Instrument
u	D #		Compound	Value	Value			Date	#	ΙD
· ·	.cs	BN 4384	TC	3.35	3.44	103	%	09/19/94	Leco CR12	#7
Ł	.cs	BN 4056	CC	11.33	11.28	100	%	10/05/94	COU-02	#3
L	.cs	BN 99	DOC	5	5.8	116	mg/L	10/08/94	SM 5310D	#6

SPIKE RECOVERY

Lab	Source	Element/	True	Found	% R	Units		Method	Instrument
ID #		Compound	Value	Value			Date	#	ID
SPIKE	BN 3716	TC	13560	13171	97	ug C	09/19/94	Leco CR12	#7
SPIKE DUP	BN 3716	TC	12360	11985	97	ug C	09/19/94	Leco CR12	#7
SPIKE	BN 3716	CC	1402	1443	103	ug C	10/05/94	COU-02	#3
SPIKE DUP	BN 3716	CC	1128	1194	106	ug C	10/05/94	COU-02	#3
SPIKE	PD 8/9/94	DOC	100	138	138	mg/L	10/08/94	SM 5310D	#6
SPIKE DUP	PD 8/9/94	DOC	100	135	135	mg/L	10/08/94	SM 5310D	#6

Spike recoveries high for TOC (water). These samples these levels not generally run by this method. Spike on other samples for same project run that day had recoveries as shown below

	Spike oil other	Samples for s	arrio project re	in that day	Had icci	0401103 03 311	OWN DEICW.		
SPIKE	PD 8/9/94	DOC	25	24	94	mg/L	10/08/94	SM 5310D	#6
SPIKE DUP	PD 8/9/94	DOC	25	28	110	mg/L	10/08/94	SM 5310D	#6



LABORATORIES, INC.

Ouality Analytical Services Since 1936 4630 Indiana Street • Golden, CO 80403

NON-CLP QA/QC ANALYSIS RESULTS INITIAL AND CONTINUING CALIBRATION VERIFICATION

Date:

10/26/94

rev01

Client: Evergreen Analytical

Lab Name: Huf Contact:

Huffman Labs Sue Zeller Contact: Mark Mensik Huffman Lab #: 271294

INITIAL CALIBRATION

Lab	Source	Element/	True	Found	% R	Units		Method	Instrument
ID#		Compound	Value	Value			Date	#	ID
ICS	BN 3716	TC	12.00	11.87	99	%	09/19/94	Leco CR12	#7
ICS	BN 3716	CC	12.00	12.02	100	%	10/05/94	COU-02	#3
ICS	BN 461	DOC	10	10.1	101	mg/L	10/08/94	SM 5310D	#6

Slope = NA

Intercept =

NA NA

Single point calibrations for this test.

95% Correlation Coefficient =

NA

CONTINUING CALIBRATION VERIFICATION

Lab	Source	Element/	rrue	rouna	% H	Units		Method	Instrument
ID#		Compound	Value	Value			Date	#	ID
 ccs	BN 3716	TC	12.00	11.91	66	%	09/19/94	Leco CR12	#7
CCS	BN 3716	TC	12.00	11.80	98	%	09/19/94	Leco CR12	#7
CCS	BN 3716	CC	12.00	12.03	100	%	10/05/94	COU-02	#3
ccs	BN 461	DOC	10	10.3	103	mg/L	10/08/94	SM 5310D	#6
CC\$	BN 461	DOC	10	10.3	103	mg/L	10/08/94	SM 5310D	#6

LABORATORIES, INC. Quality Analytical Services Since 1938 4630 Indiana Street - Coldon, CO 80405

ANALYSIS TRACE TOTAL	DRGANIC CARBON (TOC)
METHOD AMPOULE	DETECTION LIMIT 50 µg C/L
	COULOMETER # (/

10 mg/L STD. (dil. date) 9-27.94	<u>5</u> mg/L STD. (dil date) <u>4-27-9</u> 4	25 mg/L std. (dil. date) 9-2
Benzaic Acid: BN 석시	KHP: BN _ 99	X4P BN 99

	Benzoic Acid: Bi	481		111111	BN 77		XHP	: BN 77	
	Sample #	Sample Vol. (ml)	μg C reading	µg C Blank	TOC mg C/L	Notes		aс	% Rec
	Bl		2.9	3.0					
	10mg/L	10	104.2		10.12	Denne		ICS	181%
	San /1	10	61.0		5.80			405	116.2
	5mg/L 29/2-02	10	58.2		5,52				
	2712-02	10	59.8		5.68		,		
	27/2-03	10	98.6		9,56) any 18.37	10.3	DO-	14. <u> </u>
	2712-03	10	113.5		11.08	5		of med	~\ <u>\</u>
	27/2-04	10	92.1		8.9/				
	2712-05	10	93.5	-	9,05				
	3712-05		24.9		2.19			<u> </u>	<u></u>
	27/2-05	10	23.9		2.09				
	27/2-06	10	383.4		38.04			<u> </u>	
	2712-06	10	39,20		38.90				
1 = 0 5 7 6	11. my // + 130/15	115.9	1059		10.3.9	11 263 11 Si		CCS Programs	
1 mil Std.	127/2	استدرد	23 4./	(.)	23,1/	4.268// Spelie		Specific of	13876 1357
	27/2-03	10	23,05	130.5)	22.75			necor f	13-1
	2734-06	10	88,9		8.59				
		,,							
	224		(', c		2 7 .				
74	2734-06	10	900		8.70)6 0 '		المتعنظم	93%
3/44-	2734-06	16	104.1		10:01	9 ml sample +		per ory	109;
5 pike	10 1	10	108.0		10,50	Inl 25 m/c std.	<u>}</u>	ecoury	
	forms / L	10	105.6		10.26			ccsl	103/
	ANALYST	Chris	ly	DAT 10	-8 -94	REVIEWED DAT	E v/10/14	PAGE /	of /

NOTE: $mg C/L = [\mu g C (sample)] - [\mu g C (blank)] \div [sample volume (ml)]$

!!g C/L = (mg C/L) * 1000

100 mg/2 5Td KHP BN99 dil 8-9-94

Huge recovery. Ind procession Demple weeks high for their method

Evergreen Analytical Sample Log Sheet Date(s) Sampled: 09/14/94 COC			Project # <u>94-3516</u> Date Due: <u>09/29/94</u>				
•	ject I.D. MAD			-BTEX,	TVH, AL		YTIN
Client: <u>En</u>	gineering Scien	ce, Inc.	Shipping	J Char	ges <u>N/</u>	A	_
Address: 1	700 Broadway Su	ite 900	E.A. Co	ooler ;	# <u>361</u>		
D	enver, CO 8029	0	Airbill	l # <u>FE</u> I	DEX-95	81892	950
Contact: G	ail Saxton		Custo	ly Sea	l Inta	ct?	Y
liant D O	722450 00020		Coole COC Pi	er X	Bott	les _	_ _Y
	• <u>722450.09020</u>		Sample	Tags			Y
hone #831	-8100 Fax	# <u>831-8208</u>		Tags			Y
Special In	voicing/Billing		sample	e(s) Se	saled?		Y
-	structions <u>REPO</u>			ANI	ALYZE	THE T	RIP
	Client			3,54	D4.3	* -	
[D #	ID#	Analysis	5	Mtx	Btl	Loc	
'04 <u>481A/B</u>	MW-17	BTEX, TMI	3	W	40V	2	
¶482A/B	MW-10	BTEX, TMI	3	W	40V	2	
(94483A/B	MW-8	BTEX, TMI	В	<u> </u>	40V	2	
94484A/B	WANG-CPT17-5	BTEX,TMI	В	s	2WM	2	
(94485A/B	MW-9	BTEX, TMI	В	W	40V	22	
(94486A/B	MW-26	BTEX, TMI	B	W	40V	2	
(94487A/B	MW-22S	BTEX, TMI	В	W	40V	2	1,
(94488A	TRIP BLANK	BTEX, TM	В	W	40V	_2	
(94481C/D	MW-17	TVH		W	40V	2	
(94482C/D	MW-10	TVH	· · · · · · · · · · · · · · · · · · ·	W	40V	2	
(94483C/D	MW-8	TVH		W	40V	2	
(94484C/D	WANG-CPT17-5	TVH		S	2WM	22	
K94485C/D	MW-9	TVH		W	40V	2	
K94486C/D	MW-26	TVH		W	40V	2	
(94487C/D	MW-22S	TVH		W	40V	2	
<u> (94481E-G</u>	MW-17	METHANE		<u> </u>	40V	2	
K94482E-G	MW-10			W	40V	2	
/°4483E-G	<u>MW-8</u>	***		W	40V	2	
ample t	o be returned						
Route GC/M To		Metals			-		cctg <u>1</u> /
Page 1 of	SxRec <u>C</u> 2 Page(s)	QA/QC <u>C</u>	Sales <u>C</u>	File ustodi	Orig an/Dat		1915/94

Lab ID #	Client ID#	Analysis	Mtx	Bt1	Loc
1485E-G	MW-9	METHANE	W	40V	2
X94487E-G	MW-225	11	W	40V	2
X94481J	MW-17	ТЕН	W	1LA	C5/6
(94482J	MW-10	тен	W	1LA	tt
X94483J	MW-8	тен	W	1LA	11
X94485J	MW-9	ТЕН	W	1LA	
X94486J	MW-26	ТЕН	W	1LA	
X94487J	MW-22S	ТЕН	W	1LA	H
X94481H	MW-17	SO ₄ , NO ₃ , NO ₂ , Chloride	W	125P	"
X94482H	MW-10	· · · · · · · · · · · · · · · · · · ·	W		
X94483H	MW-8		W	11	
X94485H	MW-9	11	W	***	tt
X94487 <u>H</u>	MW-22S	11	W		H
X94481I	MW-17	ALKALINITY	W	500P	
X94482I	MW-10	10	W	11	
X94483I	MW-8	11	<u>W</u>	**	
X94485I	MW-9	11	W		
4487I	MW-22S	11	<u> </u>	· · · · · · · · · · · · · · · · · · ·	
X94482K	MW-10	DISSOLVED ORGANIC CARBON	W	250P	OUT
X94482K	MW-9	DISSOLVED ORGANIC CARBON	W	250P	OUT

Page 2 of 2 Pages
Project # 94-3516

R=Sample to be returned

CHAIN OF CUSTODY RECORD / / ALYTICAL SERVICES REGUES! Evergreen Analytical Inc.

Page

ANE ANE 20 deux additional Ve		Notes	of E.S. Inc.
200 St. 100 St		Jimago Junico + XX Mation of XXX XX	X X X X X X X X X X X X X X X X X X X
-	QUESTED	Corcle & list metals below) Corcle & list metals below) Corcle & list metals below) Corcle & list metals below) Corcle & list metals below) Corcle & list metals below) Corcle & list metals below)	X X X Date/Time
4036 Youngfield Wheat Ridge, Colorado 80033 (303) 425-6021 FAX (303) 425-6854 FAX RESULTS Y /N	ANALYSISPEQUESTED	PCB 8080/PCB Screen (circle) TRPH 418.1/Oil	X X X X X X X X X X X X X X X X X X X
		BNA 8270/625 (circle) Pesticides 8080/608 (circle) Pesticides 8080/608	Date/Time Reling
3-831-8208	MATRIX	Sludge/Slurry (circle) OiVOrganic Liquid (circle) Multiphase (identify phase to be analyzed) (Circle VOA/BMA/O	Mr ice.
10290 FAX# 303	Σ	O No. of Confainers Carcle) Carcle) Calcle)	195 27 X X X X X X X X X X X X X X X X X X
		MASON TIME 0 TIME 0 13:30	16:05 16:00
Engineering-Science 1700 Broceluscy	V. Allett	MKHSVANSON DATE SAMPLED TIME 9/14/94 [1:33	206 9/14/44 9/14/44 206 9/14/44 9008/11/16
ADDRESS TO BIOCOLUSY CITY DEMUCT STATE CO ZIP E PHONE # 303-831 -8100	(signature)	Evergreen Analytical Cooler No.#36 Evergreen Analytical Cooler No.#36 SAMPLE IDENTIFICATION SAMPLE IDENTIFICATION SAMPLE IDENTIFICATION ON.W-17 ON.W-17 ON.W-19 M.W-8 ON.W-9	

*

Date/Time

Date/Time Received by: (Signature)

Are/Time Relinquished by: (Signeture)

Bvergreen Ana)	_	_								• .
Date & Time Rec'd:	5/94		Shipp	ed	Via	· Fedt	X	95	-8	18929
Client: Enginee in	5 5 C. el	-æ			(A1:	rbill #	11	appl	ica	ble)
Client Project ID(s):							-			
EAL Project #(s):94-			E	AL	Coo	ler(s)	:	Y		N
Cooler#				-			_			_
Cce packs (Y) N		Y	N		Y	N		Y	N	•
emperature °C				•			-			
Custody seal(s) pres Seals on cooler in Seals on bottle in	tact				-	¥ >=		N	 -	N/A
. Chain of Custody pre	sent:					<u> </u>				
Containers broken or (Comment on COC if					-			<u>></u>	_	
. Containers labeled:					_	<u>></u>			_	
Comment on COC if		l:			_	<u>></u>			-	
6. COC agrees w/ labels (Comment on COC if)					_	<u>×</u>	•		_	
. Headspace in VOA via (comment on COC		only			_			$\frac{\times}{}$	-	
. VOA samples preserve	d:	٠				\times		<u>.</u>	_	
. pH measured on metal: List discrepancies_ *Non-EAL provided co	_	_					1v		-	
		Only,	wate	L	samp	ies on	тУ	•		×
O. Metal samples present total, Dissolution D or PD to be filter	lved						•		_	
T,TR,D,PD to be Pres					_				_	
1. Short holding times Specify parameters		nit	ite			<u> </u>				·
12 Wilhi share		S VUC	J			,		入		·
12. Multi-phase sample(s		• •			_	1/	•		_	
<pre>13. COC signed w/ date/</pre>	time:				-	-{				
Comments:										

*

BTEX Data Report

Client Sample Number	: MW-17	Client Project No.	: Madison Ang
Lab Sample Number	: X94481	Lab Project No.	: 94-3516
Date Sampled	: 9/14/94	Dilution Factor	: 1.00
Date Received	: 9/15/94	Method	: 602
Date Extracted/Prepared	: 9/17/94	Matrix	: Water
Date Analyzed	: 9/17/94	Lab File No.	: BX2091714
		Method Blank No.	: MB091794

		Sample	
Compound Name	Cas Number	Concentration	MDL
Benzene	71-43-2	ug/L ∪	ug/L 0.4
Toluene	108-88-3	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylene (m/p ÷ o)	1330-20-7	U	0.4
1,3,5-trimethylbenzene	108-67-8	U	0.4
1,2,4-trimethylbenzene	95-63-6	U	0.4
1,2,3-trimethylbenzene	526-73·8	U	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogata Recovery:

a,a,a,-Tranuorotoluene : 103% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

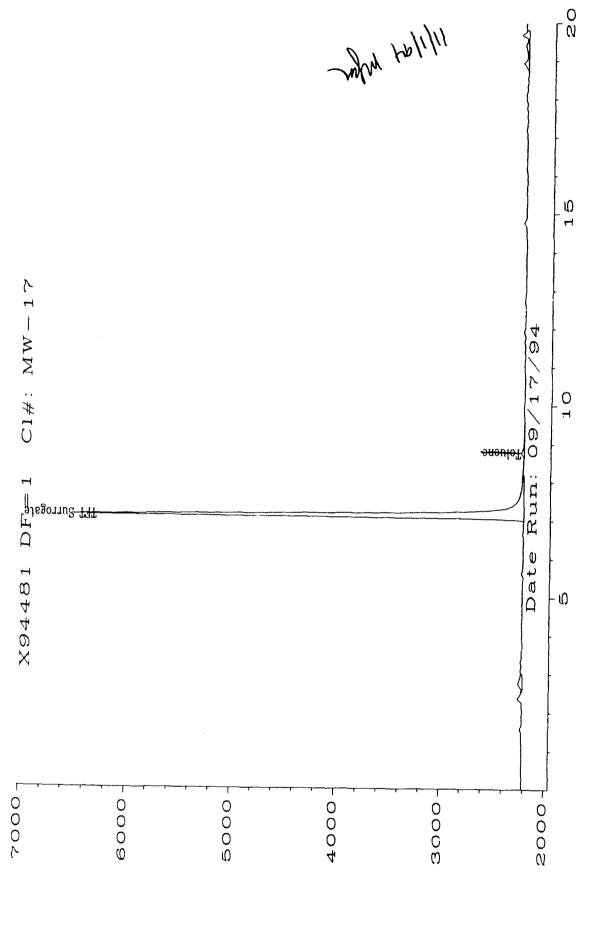
B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

Analyst

Approved



2 in C:\HPCHEM\2\DATA\BX20917\014R0101.D Sig.

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BTEX Data Report

Sample

Client Sample Number	: MW-10	Client Project No.	: Madison Ang
Lab Sample Number	: X94482	Lab Project No.	: 94-3516
Date Sampled	: 9/14/94	Dilution Factor	: 1.00
Date Received	: 9/15/94	Method	: 602
Date Extracted/Prepared	: 9/17/94	Matrix	: Water
Date Analyzed	: 9/17/94	Lab File No.	: BX2091715
		Method Blank No.	: MB091794

Compound Name	Cas Number	Concentration ug/L	MDL ug/L
Benzene	71-43-2	110	0.4
Toluene	108-88-3	4.8	0.4
Ethyl Benzene	100-41-4	78	0.4
Total Xylene (m/p + o)	1330-20-7	*	*
1,3,5-trimethylbenzene	108-67-8	67	0.4
1,2,4-trimethylbenzene	95-63-6	•	*
1,2,3-trimethylbenzene	526-73-8	100	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

* = See BX2091810 for noted values, df = 10, 09/18/94.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 113%
QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

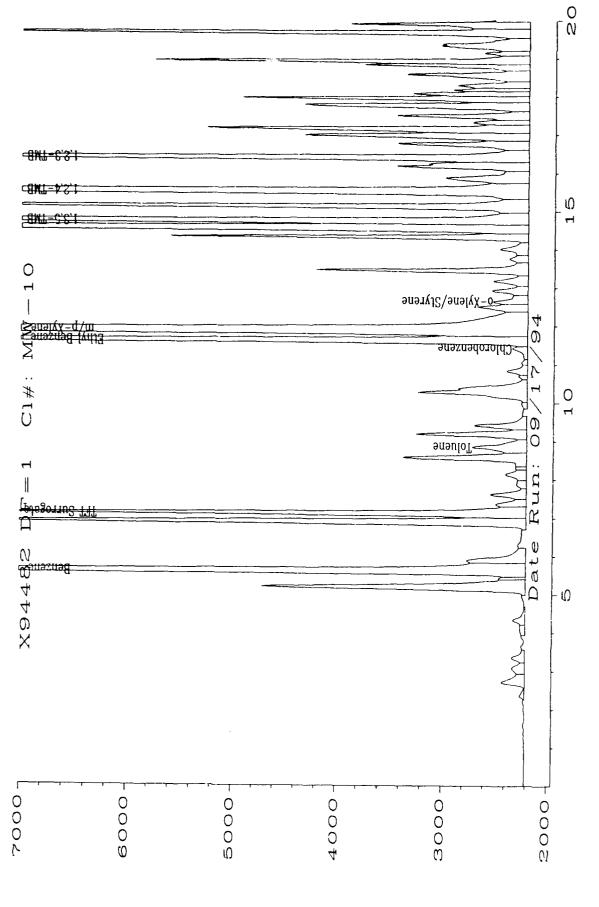
B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

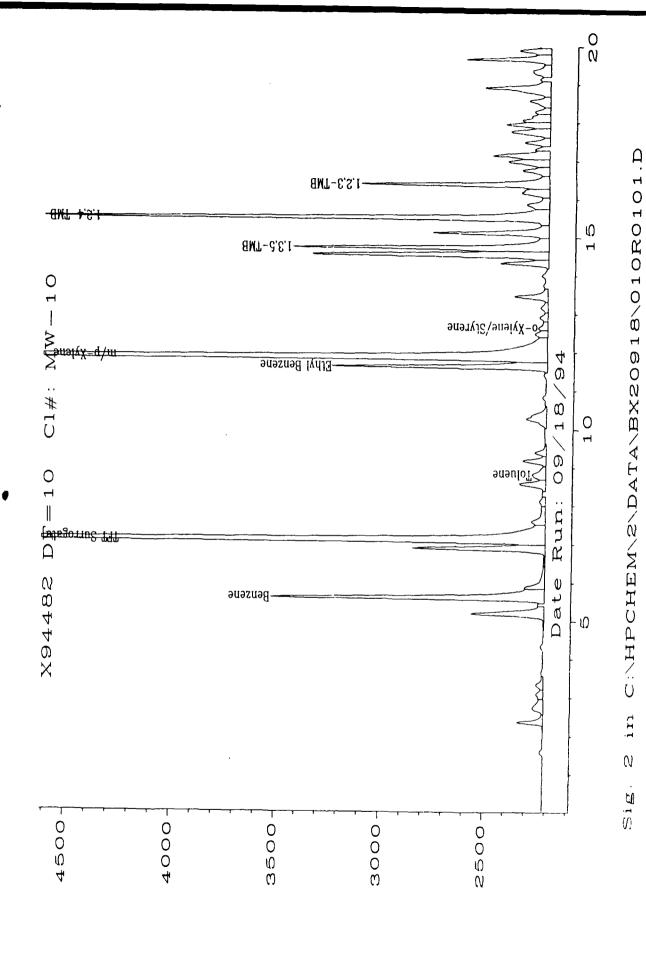
NA ≈ Not available.

Approved /

Apelvet



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BTEX Data Report

Client Sample Number	: MW-8	Client Project No.	: Madison Ang
Lab Sample Number	: X94483	Lab Project No.	: 94-3516
Date Sampled	: 9/14/94	Dilution Factor	: 10.00
Date Received	: 9/15/94	Method	: 602
Date Extracted/Prepared	: 9/17/94	Matrix	: Water
Date Analyzed	: 9/17/94	Lab File No.	: BX2091716
•		Method Blank No.	: MB091794

Compound Name	Sample		
	Cas Number	Concentration ug/L	MDL ug/L
Toluene	108-88-3	15	4
Ethyl Benzene	100-41-4	220	4
Total Xylene (m/p + o)	1330-20-7	1700	4
1,3,5-trimethylbenzene	108-67-8	240	4
1,3,3-timletityibenzene	100-07-0	240	₹
1,2,4-trimethylbenzene	95-63-6	540	4
1,2,3-trimethylbenzene	526-73-8	400	4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

* = See BX2091811 for noted values, df = 20, 09/18/94.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 89%
QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

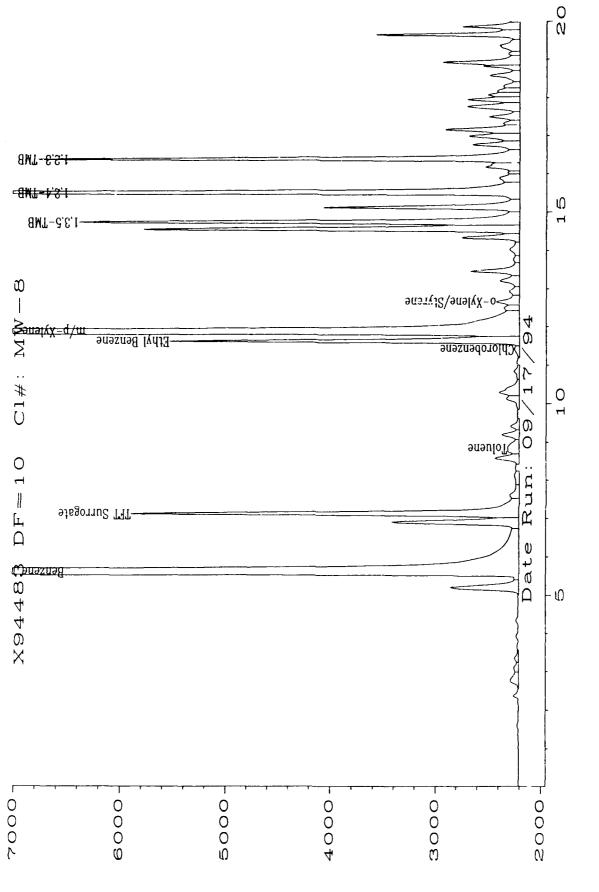
B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

Apalyst

Approve



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BTEX Data Report

Client Sample Number	: MW-8	Client Project No.	: Madison Ang
Lab Sample Number	: X94483	Lab Project No.	: 94-3516
Date Sampled	: 9/14/94	Dilution Factor	: 20.00
Date Received	: 9/15/94	Method	: 602
Date Extracted/Prepared	: 9/18/94	Matrix	: Water
Date Analyzed	: 9/18/94	Lab File No.	: BX2091811
		Method Blank No	· MR091894

Compound Name	Cas Number	Sample Concentration	MDL
		ug/L	ug/L
Benzene	71-43-2	4700 E	8
Toluene	108-88-3	•	•
Ethyl Benzene	100-41-4	•	*
Total Xylene (m/p + o)	1330-20-7	•	•
1,3,5-trimethylbenzene	108-67-8	*	*
1,2,4-trimethylbenzene	95-63-6	•	*
1,2,3-trimethylbenzene	526-73-8	*	*

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 112%
QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

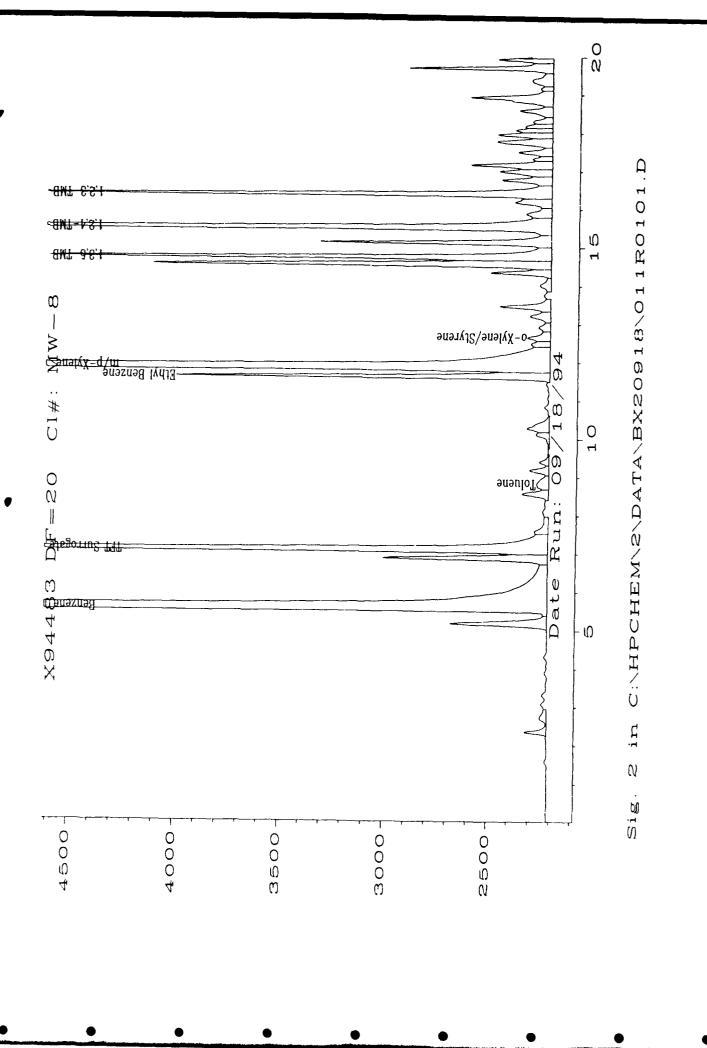
MDL = Method Detection Limit.

NA = Not available.

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^{* =} See BX2091716 for noted $\$ alues, df = 10, 09/17/94.



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BTEX Data Report

Client Sample Number	: Wang-CPT17-5	Client Project No.	: Madison Ang
Lab Sample Number	: X94484	Lab Project No.	: 94-3516
Date Sampled	: 9/14/94	Dilution Factor	: 5.00
Date Received	: 9/15/94	Method	: 8020
Date Extracted/Prepared	: 9/17/94	Matrix	: Soil
Date Analyzed	: 9/18/94	Lab File No.	: BX2091724
Methanol Extract?	: No	Method Blank No.	: MB091794

Compound Name	Cas Number	Sample Concentration** ug/kg	PQL ug/kg
Benzene	71-43-2	140	22
Toluene	108-88-3	9.4 J	22
Ethyl Benzene	100-41-4	130	22
Total Xylene (m/p + o)	1330-20-7	280	22
1,3,5-trimethylbenzene	108-67-8	100	22
1,2,4-trimethylbenzene	95-63-6	270	22
1,2,3-trimethylbenzene	526-73-8	210	22

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

100%

QC Reporting Limits

: 55%-127%

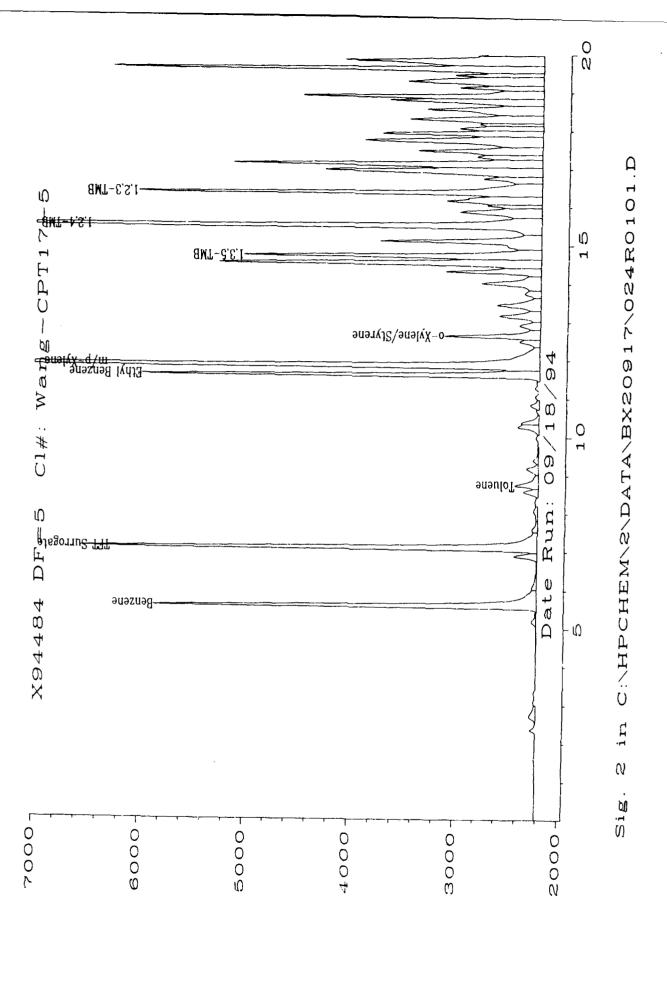
QUALIFIERS:

- ** = All sample results & PQLs are reported on a dry weight basis.
- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
- PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst

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BTEX Data Report

Client Sample Number	: MW-9	Client Project No.	: Madison Ang
Lab Sample Number	: X94485	Lab Project No.	: 94-3516
Date Sampled	: 9/14/94	Dilution Factor	: 1.00
Date Received	: 9/15/94	Method	: 602
Date Extracted/Prepared	: 9/18/94	Matrix	: Water
Date Analyzed	: 9/18/94	Lab File No.	: BX2091809
		Method Blank No.	: MB091894

Compound Name	Sample		
	Cas Number	Concentration	
		ug/L	
Benzene	71-43-2	98	0.4
Toluene	108-88-3	1.2	0.4
Ethyl Benzene	100-41-4	0.7	0.4
Total Xylene (m/p + o)	1330-20-7	2.6	0.4
1,3,5-trimethylbenzene	108-67-8	6.4	0.4
1,2,4-trimethylbenzene	95-63-6	14	0.4
1,2,3-trimethylbenzene	526-73-8	1.8	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 105% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

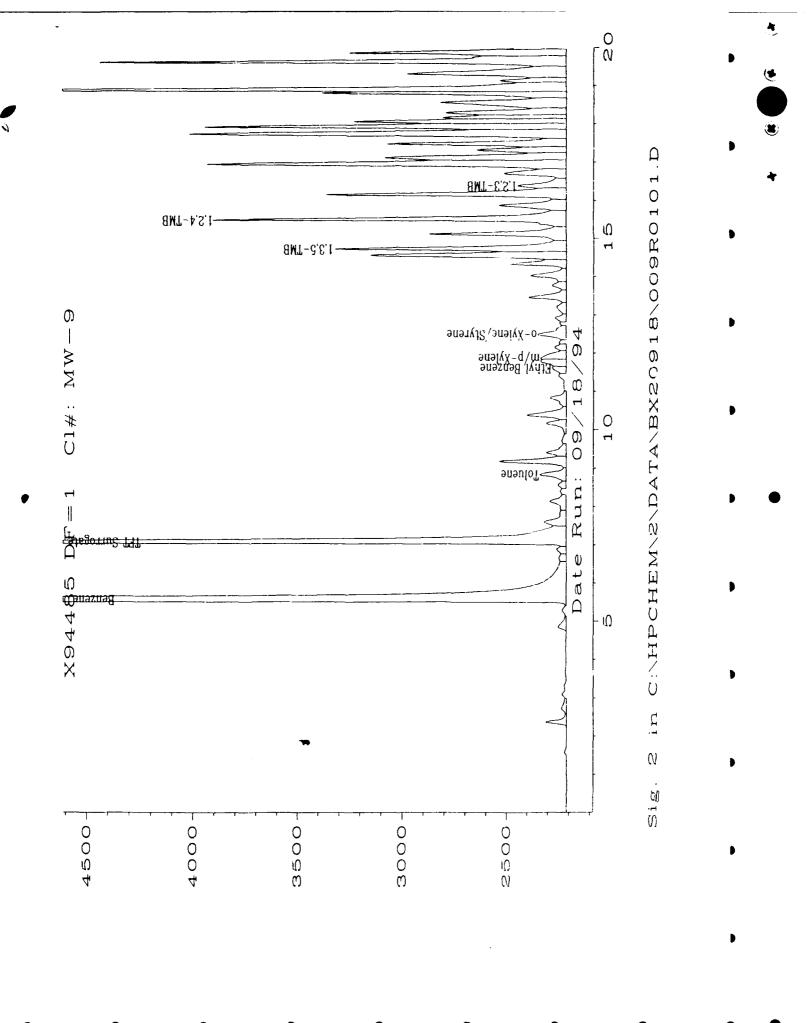
B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

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BTEX Data Report

Client Sample Number	: MW-26	Client Project No.	: Madison Ang
Lab Sample Number	: X94486	Lab Project No.	: 94-3516
Date Sampled	: 9/14/94	Dilution Factor	: 1.00
Date Received	: 9/15/94	Method	: 602
Date Extracted/Prepared	: 9/17/94	Matrix	: Water
Date Analyzed	: 9/18/94	Lab File No.	: BX2091722
		Method Blank No.	: MB091794

Compound Name	Cas Number	Sample Concentration	MDL
Benzene	71-43-2	ug/L 89	ug/L 0.4
Delizene	71 40 2	03	0.4
Toluene	108-88-3	1.0	0.4
Ethyl Benzene	100-41-4	0.6	0.4
Total Xylene	1330-20-7	3.0	0.4
(m/p + o)			
1,3,5-trimethylbenzene	108-67-8	6.7	0.4
·			
1,2,4-trimethylbenzene	95-63-6	15	0.4
1,2,3-trimethylbenzene	526-73-8	1.7	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 101% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

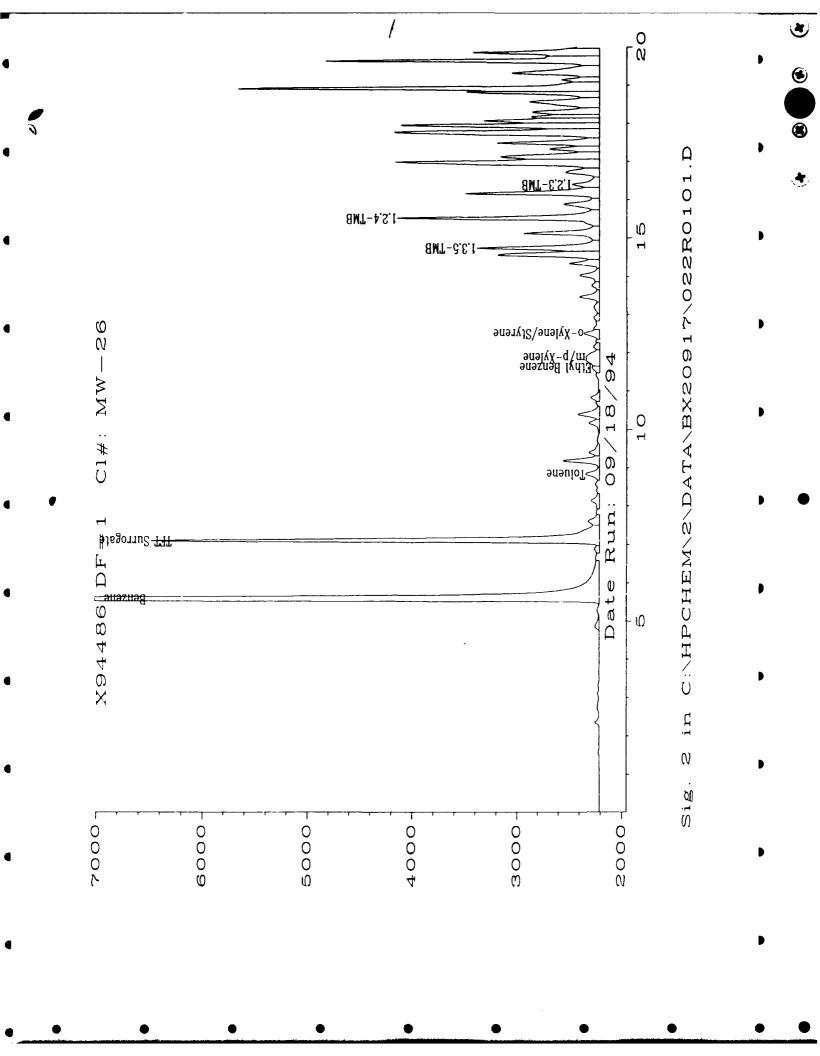
B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

Analyst

Approved



BTEX Data Report

Client Sample Number	: MW-22S	Client Project No.	: Madison Ang
Lab Sample Number	: X94487	Lab Project No.	: 94-3516
Date Sampled	: 9/14/94	Dilution Factor	: 1.00
Date Received	: 9/15/94	Method	: 602
Date Extracted/Prepared	: 9/17/94	Matrix	: Water
Date Analyzed	: 9/18/94	Lab File No.	: BX2091723
		Method Blank No.	: MB091794

Compound Name	Cas Number	Sample Concentration ug/L	MDL ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	0.4	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylene (m/p + o)	1330-20-7	U	0.4
1,3,5-trimethylbenzene	108-67-8	0.6	0.4
1,2,4-trimethylbenzene	95-63-6	0.6	0.4
1,2,3-trimethylbenzene	526-73-8	0.6	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 98% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

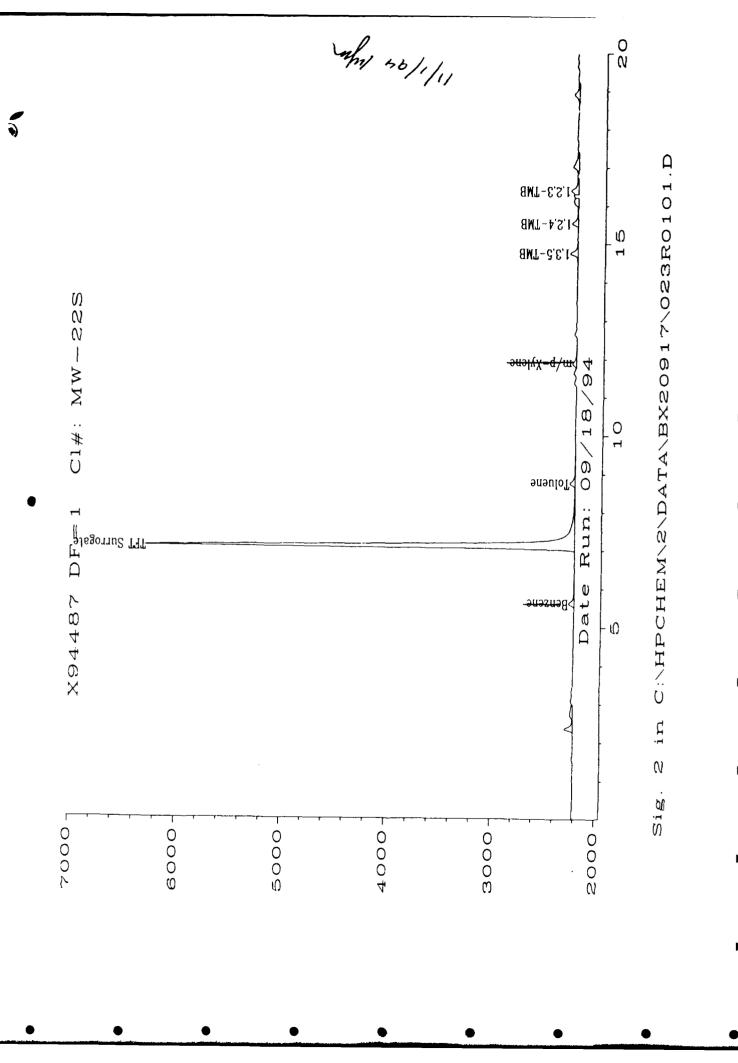
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

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BTEX Data Report

Client Sample Number	: Tri:	Client Project No.	: Madison Ang
Lab Sample Number	: X958	Lab Project No.	: 94-3516
Date Sampled	: 9/14/94	Dilution Factor	: 1.00
Date Received	: 9/15/94	Method	: 602
Date Extracted/Prepared	: 9/17/94	Matrix	: Water
Date Analyzed	: 9/18/94	Lab File No.	: BX2091720
		Method Blank No.	: MB091794

	Sample				
Compound Name	Cas Number	Concentration	MDL		
		ug/L	ug/L		
Benzene	71-43-2	U	0.4		
Toluene	108-88-3	U	0.4		
Ethyl Benzene	100-41-4	U	0.4		
Total Xylene (m/p + o)	1330-20-7	U	0.4		
1,3,5-trimethylbenzene	108-67-8	U	0.4		
1,2,4-trimethylbenzene	95-63-6	U	• 0.4		
1,2,3-trimethylbenzene	526-73-8	U	0.4		

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 93% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

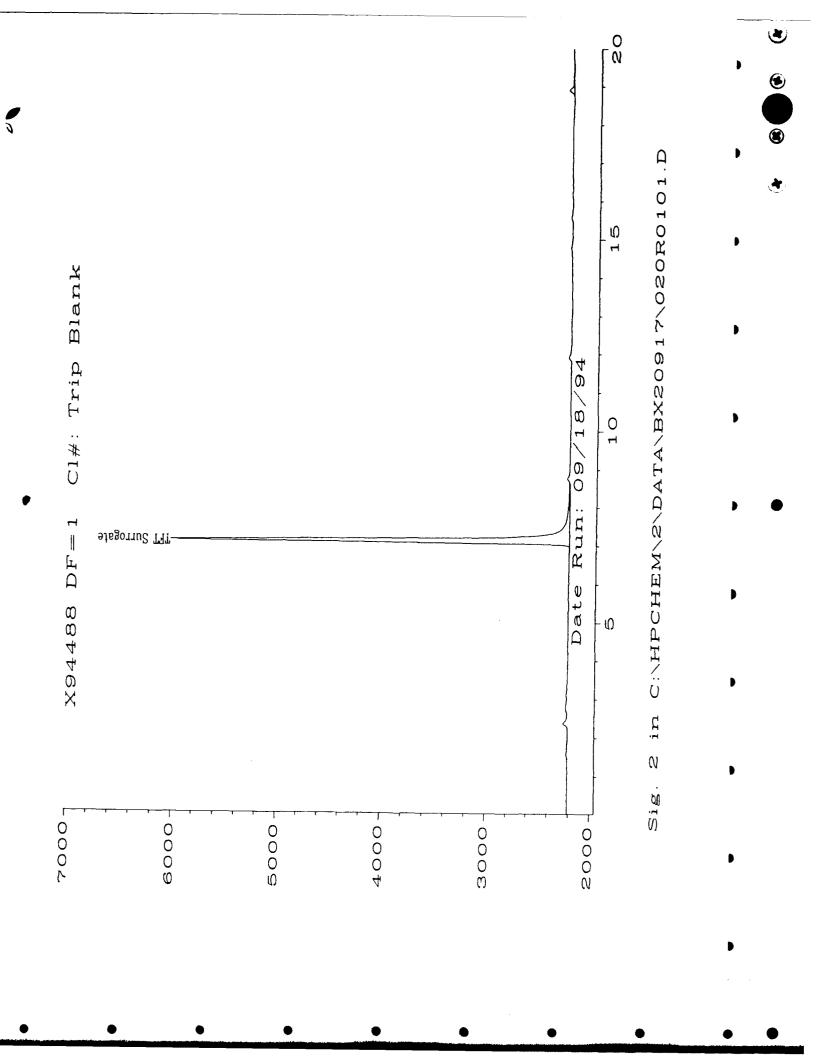
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

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BTEX Data Report Method Blank Report

Method Blank Number

: MB091794

Client Project No.

: Madison Ang

Date Extracted/Prepared

: 9/17/94

Lab Project No.

: 94-3516

Date Analyzed

: 9/17/94

Dilution Factor

: 1.00

Method Matrix

: 8020 : Water

Lab File No.

: BX2091703

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4
Toluene	108-88-3	U	4
Ethyl Benzene	100-41-4	U	4
Total Xylene (m/p + o)	1330-20-7	U	4
1,3,5-trimethylbenzene	108-67-8	U	4
1,2,4-trimethylbenzene	95-63-6	U	4
1,2,3-trimethylbenzene	526-73-8	U	4

Note: Total Xylene consist of three isomers, two of which co-elute. The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

111%

QC Reporting Limits

: 77%-116%

QUALIFIERS:

E = Extrapolated value

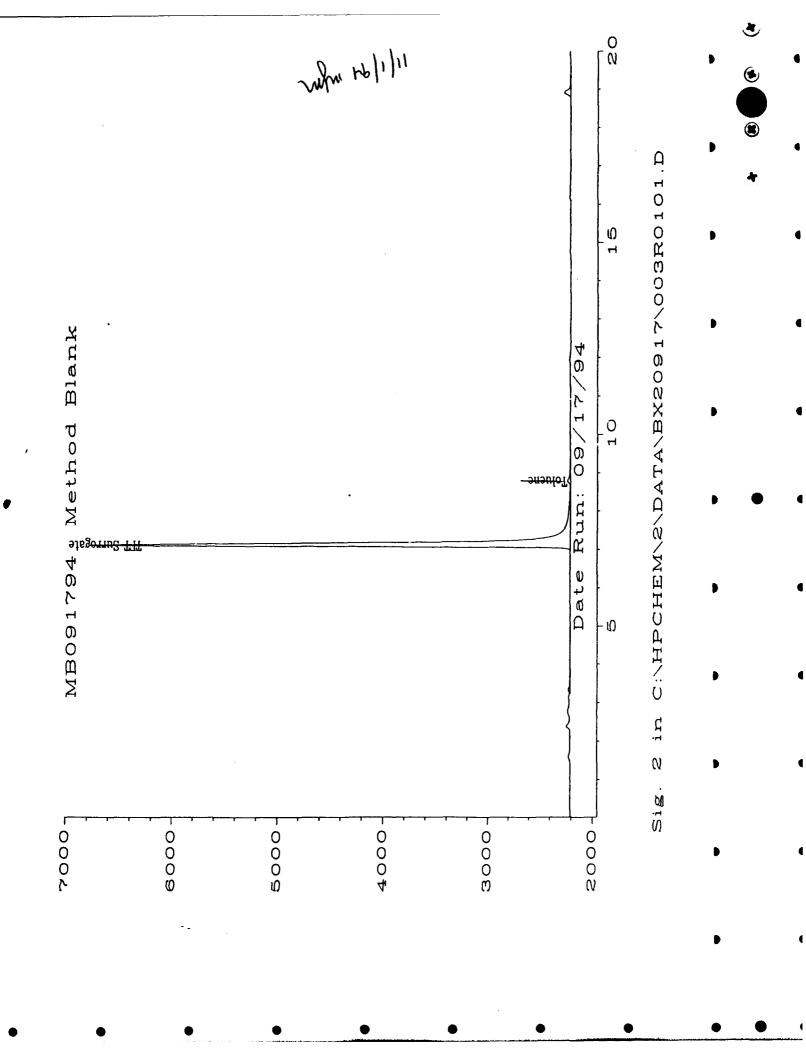
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available



BTEX Data Report Method Blank Report

Method Blank Number

: MB091894

Client Project No.

: Madison Ang

Date Extracted/Prepared

: 9/18/94

Lab Project No.

: 94-3516

Date Analyzed : 9/18/94 **Dilution Factor** Method

: 1.00

Matrix

: 602 : Water

Lab File No.

: BX2091803

		Sample	
Compound Name	Cas Number	Concentration	MDL
		ug/L	ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	0.4	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylene (m/p + o)	1330-20-7	U	0.4
1,3,5-trimethylbenzene	108-67-8	U	0.4
1,2,4-trimethylbenzene	95-63-6	U	0.4
1,2,3-trimethylbenzene	526-73-8	U	0.4

Note: Total Xylene consist of three isomers, two of which co-elute. The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

111%

QC Reporting Limits

: 77%-116%

QUALIFIERS:

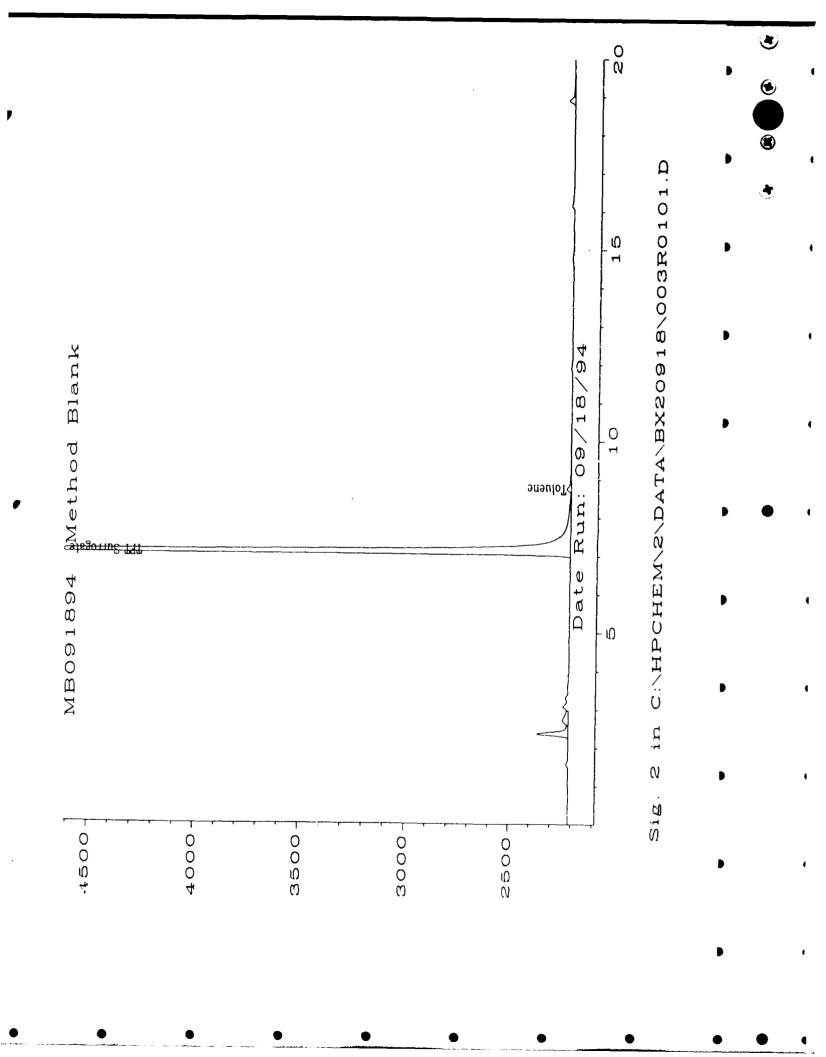
E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.







Client Sample No.: MW-17Client Project No.: Madison AngLab Sample No.: X94481Lab Project No.: 94-3516Date Sampled: 9/14/94EPA Method No.: 602

Date Received : 9/15/94 Matrix : Water

 Date Prepared
 : 9/17/94
 Lab File Number(s)
 : BX2091725,26

 Date Analyzed
 : 9/18/94
 Method Blank
 : MB091794

	Spike	Sample	MS		QC
Compound	Added	Concentration	Concentration	MS	Limits
	(ug/L)	(ug/L)	(ug/L)	%REC	%REC
Benzene	20	0	19.5	97.5	65-121
Toluene	20	0	20.1	100.5	69-117
Ethyl Benzene	20	0	20.3	101.5	68-118
m/p-Xylene	20	0	20	100	66-116
o-Xylene	20	0	20	100	73-117
1,3,5-TMB	20	0	20.9	104.5	65-12
1,2,4-TMB	20	0	20.4	102	65-12
1,2,3-TMB	20	0	21.4	107	65-121

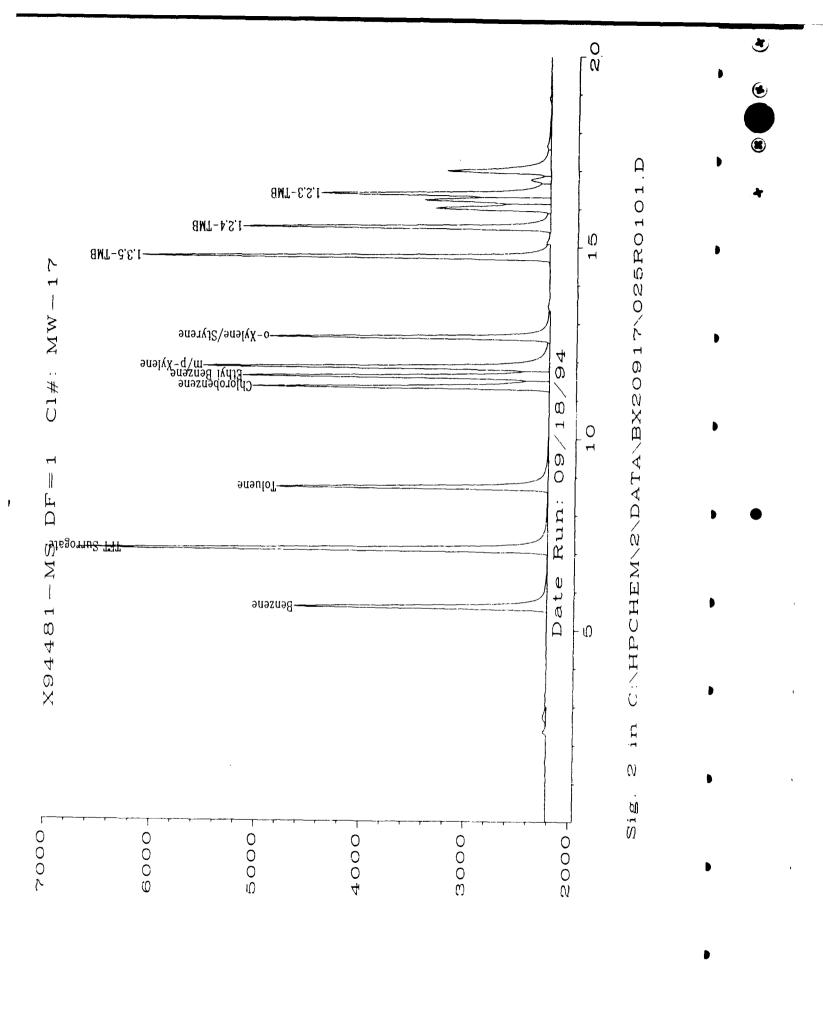
	Spike	MSD			1	C
Compound	Added	Concentration	MS	RPD	Lie	nits
	(ug/L)	(ug/L)	%REC		RPD	%REC
Benzene	20	19.7	98.5	1.0	17.4	65-121
Toluene	20	19.7	98.5	2.0	15.8	69-117
Ethyl Benzene	20	20.6	103	1.5	11.9	68-118
m/p-Xylene	20	20.3	101.5	1.5	15.4	66-116
o-Xylene	20	20.2	101	1.0	13.2	73-117
1,3,5-TMB	20	21.1	105.5	1.0	17.4	65-121
1,2,4-TMB	20	20.5	102.5	0.5	17.4	65-121
1,2,3-TMB	20	21.9	109.5	2.3	17.4	65-121

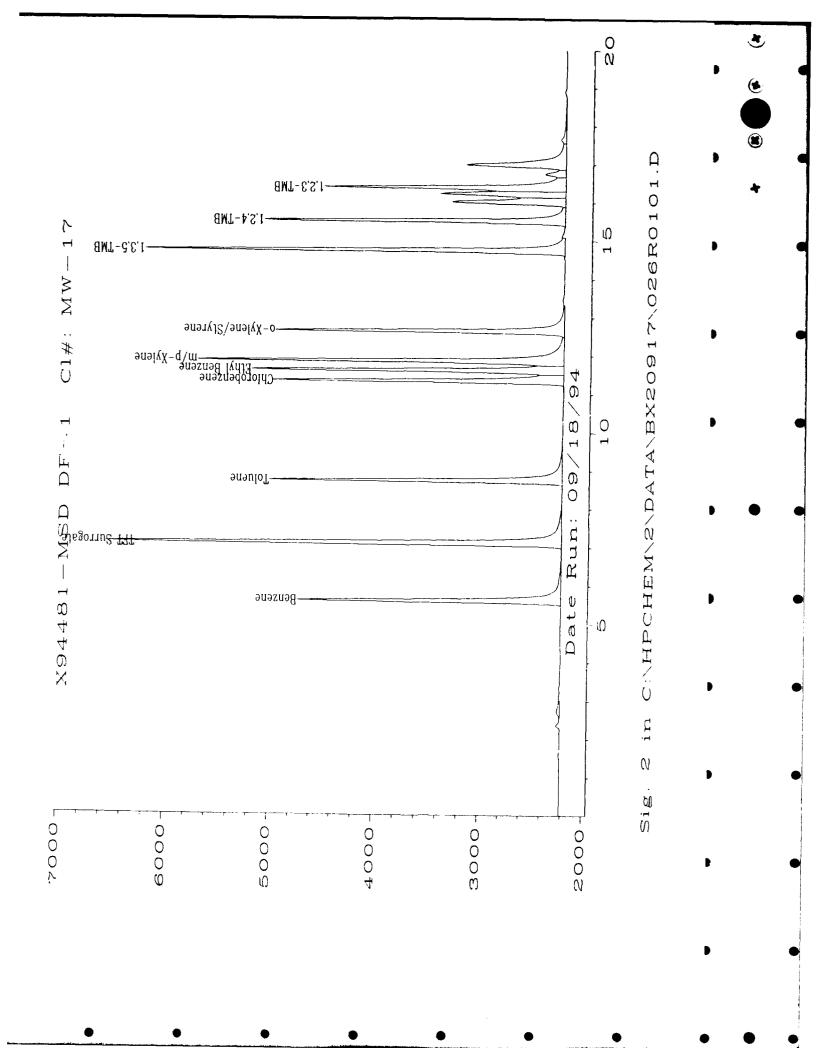
*= Values outside of QC limi	ts.
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RPD: 0 out of (8) outside limits.

Spike Recovery: 0 out of (16) outside limits.

Comments: CJC





BTEX Data Report Laboratory Control Sample (LCS)

LCS Number

: LCS091794

Client Project No.

: Madison Ang

Date Extracted/Prepared

: 9/17/94

Lab Project No.

: 94-3516

Date Analyzed

: 9/17/94

Dilution Factor

: 1.00

Method

: 8020

Matrix

: Water

Lab File No.

: BX2091713

LCS

	LOS				
Compound Name	Cas Number	Concentration	QC Limit		
		ug/L	ug/L		
Benzene	71-43-2	28	29-47		
Toluene	108-88-3	29	30-42		
Ethyl Benzene	100-41-4	31	31-43		
m/p-Xylene	NA	31	31-42		
o-Xylene	95-47-6	31	31-42		
1,3,5-trimethylbenzene	108-67-8	30	NA		
1,2,4-trimethylbenzene	95-63-6	29	NA		
1,2,3-trimethylbenzene	526-73-8	34	NA		

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

84%

QC Reporting Limits

: 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

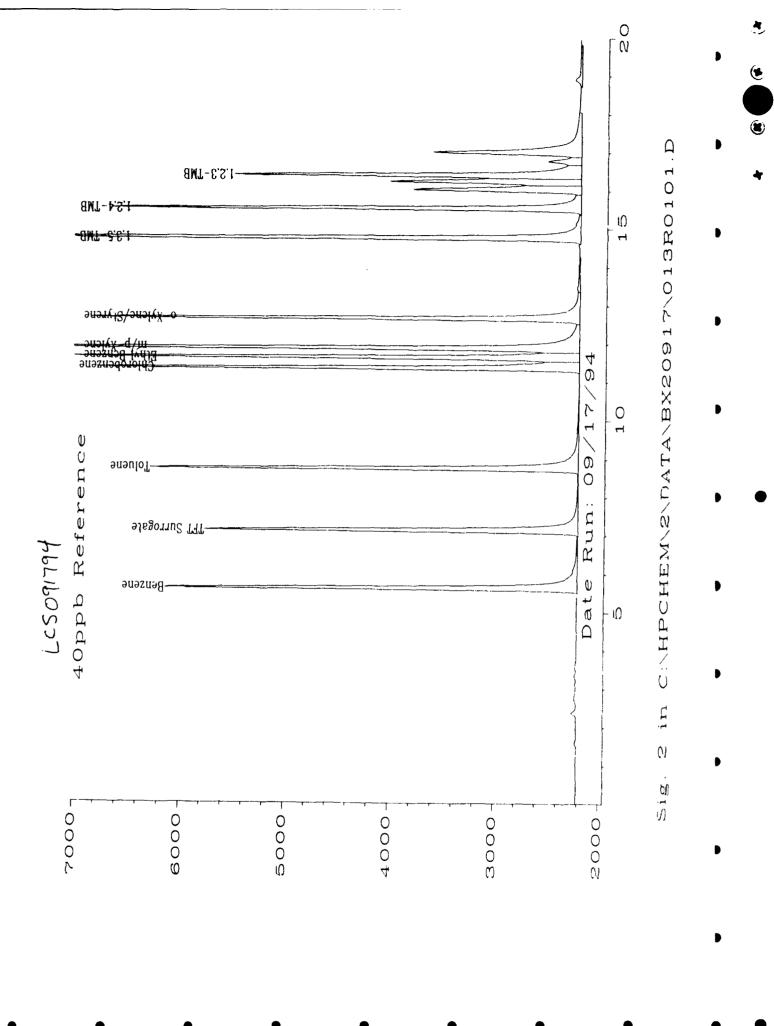
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

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BTEX Data Report Laboratory Control Sample (LCS)

LCS Number : LCS091894
Date Extracted/Prepared : 9/18/94

Client Project No.

: Madison Ang

Date Extracted/Prepared Date Analyzed

: 9/18/94 : 9/18/94 Lab Project No.
Dilution Factor

: 94-3516 : 1.00

Method Matrix : 8020 : Water

Lab File No.

: BX2091813

LCS

	ECS				
Compound Name	Cas Number	Concentration	QC Limit		
		ug/L	ug/L		
Benzene	71-43-2	35	29-47		
Toluene	108-88-3	36	30-42		
Ethyl Benzene	100-41-4	39	31-43		
m/p-Xylene	NA	39	31-42		
o-Xylene	95-47-6	38	31-42		
1,3,5-trimethylbenzene	108-67-8	37	NA		
1,2,4-trimethylbenzene	95-63-6	37	NA		
1,2,3-trimethylbenzene	526-73-8	42	NA		

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

99%

QC Reporting Limits

: 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

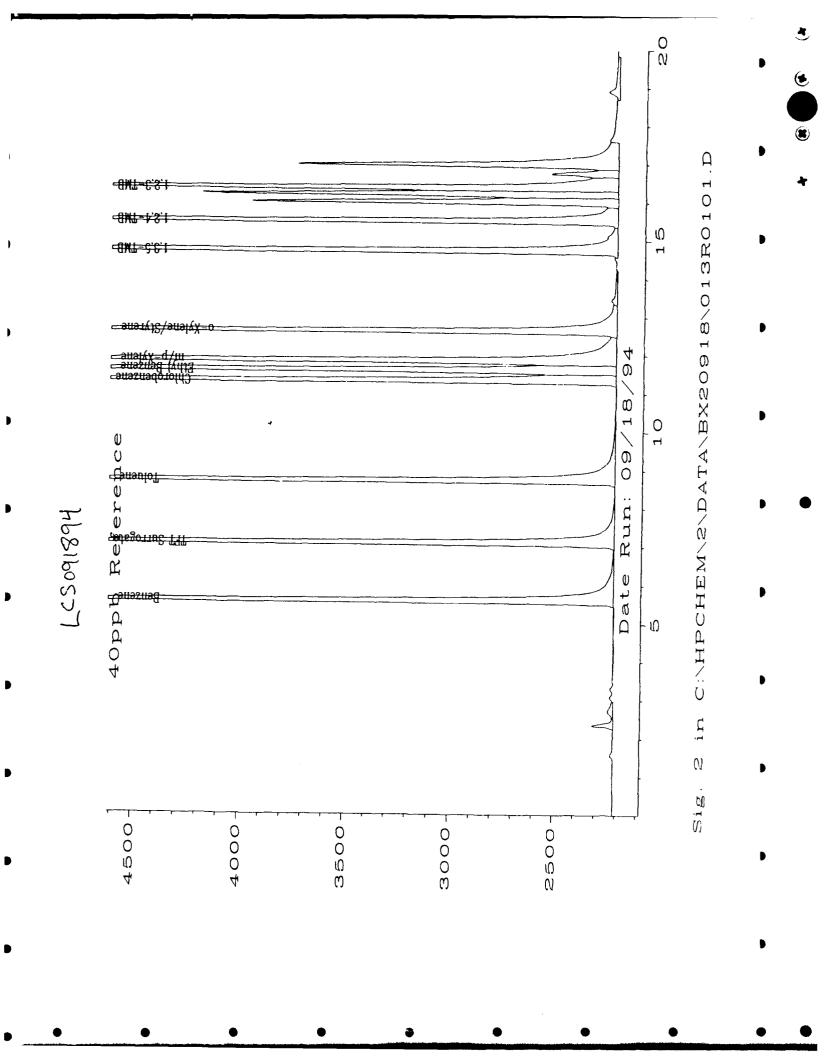
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 18, Part II, pa. 8000-14.

NA = Not available.

Analys

Approved





Date Sampled : 9/14/94 **Date Received**

: 9/15/94

Client Project Number Lab Project Number

: Madison Ang : 94-3516

Date Prepared

: 9/20/94

Matrix

: Water

Date Analyzed

: 9/20,21/94

Method Number

: 5030/Mod.8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TVH mg/L	MDL mg/L
MB092094	Method Blank	100%	U	0.1
X94481	MW-17	85%	U	0.1
X94482	MW-10	77%	4	0.2
X94483	MW-8	94%	19	0.2
X94485	MW-9	91%	0.6	0.1
X94486	MW-26	87%	U	0.1
X94487	MW-22S	83%	0.5	0.1

QUALIFIERS

U = TVH analyzed for but not detected.

B = TVH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

MDL = Method Detection Limit

TOTAL VOLATILE HYDROCARBONS (TVH)

Date Sampled

: 9/14/94

Client Project Number

: Madison Ang

Date Received

: 9/15/94 : 9/22/94 Lab Project Number

: 94-3516

Date Prepared

Matrix

: Soil

Date Analyzed

: 9/22,23/94

Method Number

: 5030/Mod.8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TVH mg/Kg	MDL mg/Kg
MB092294	Method Blank	100%	U	0.1
X94484	WANG-CPT17-5	102%	17	0.22

QUALIFIERS

U = TVH analyzed for but not detected.

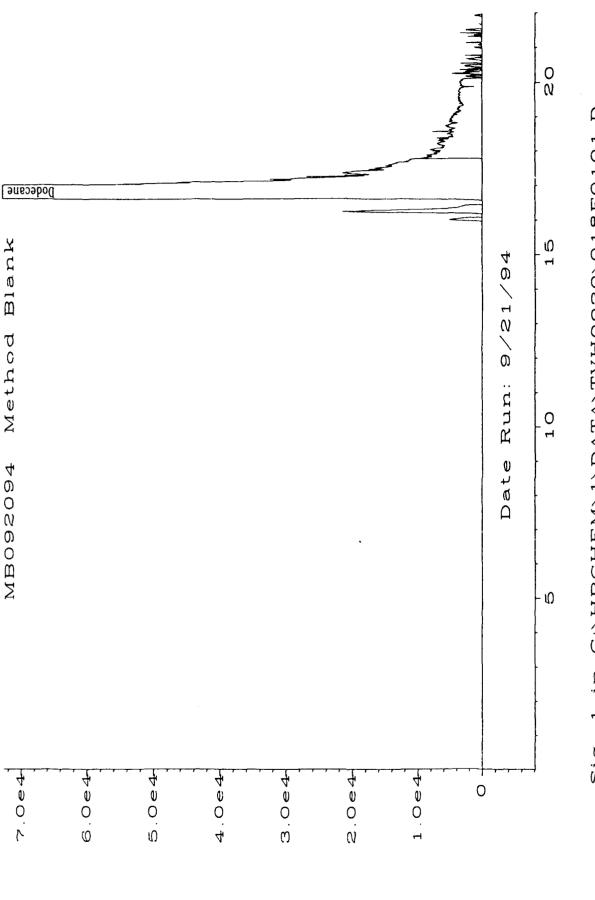
B = TVH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

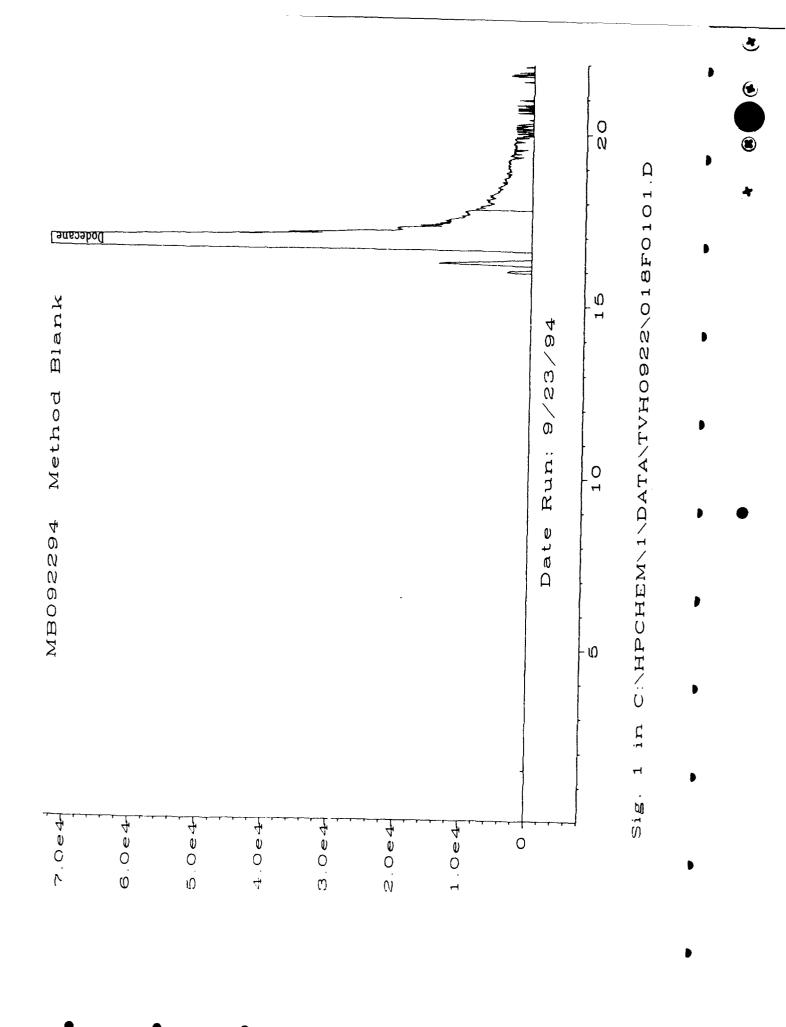
MDL = Method Detection Limit

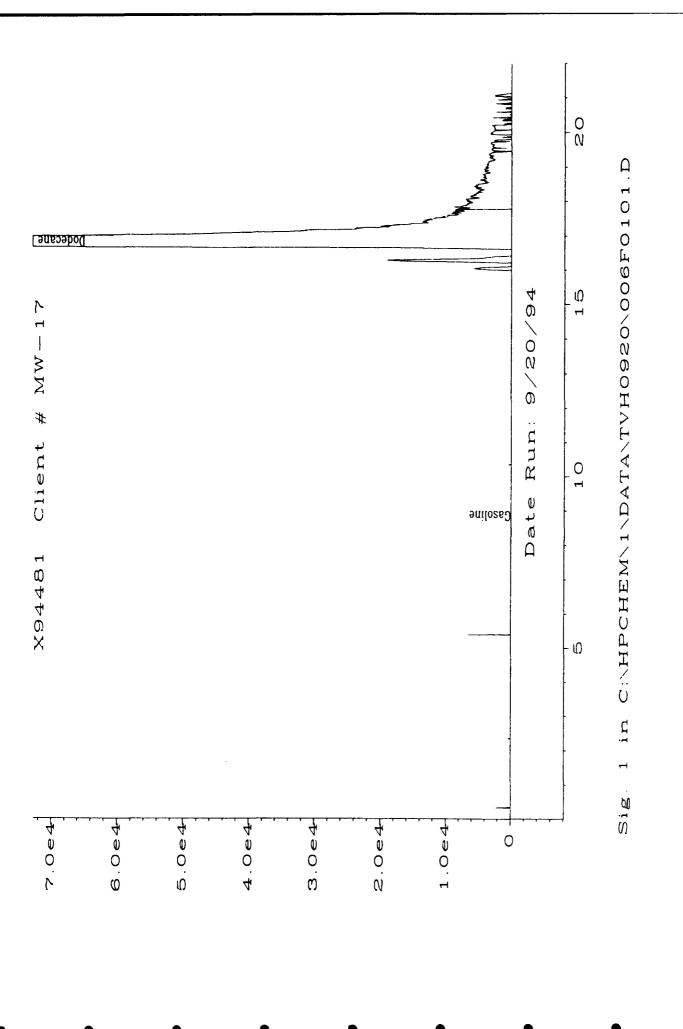
Analyst

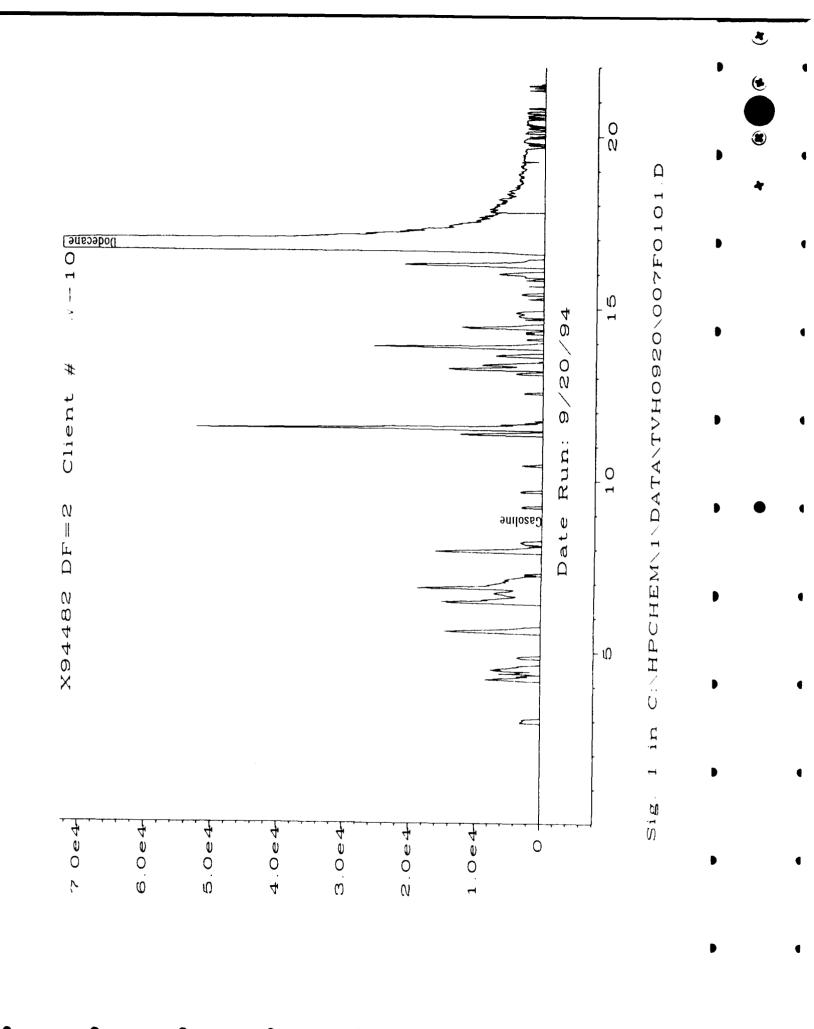
Approved

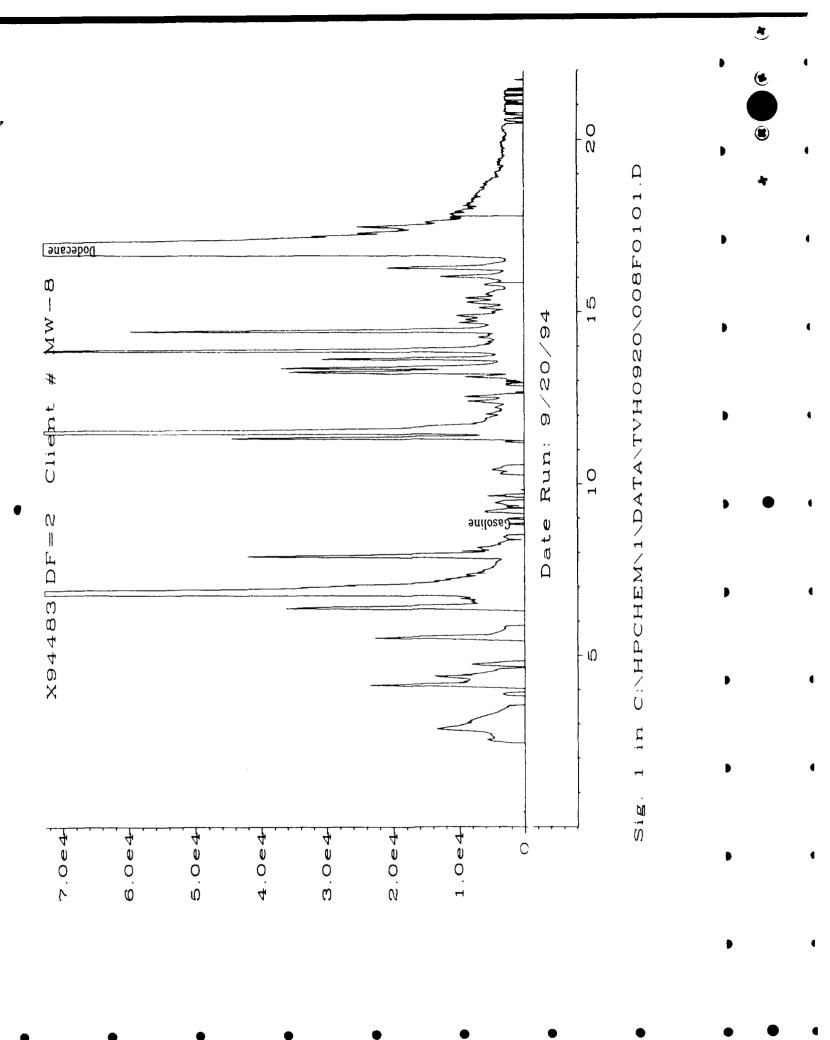


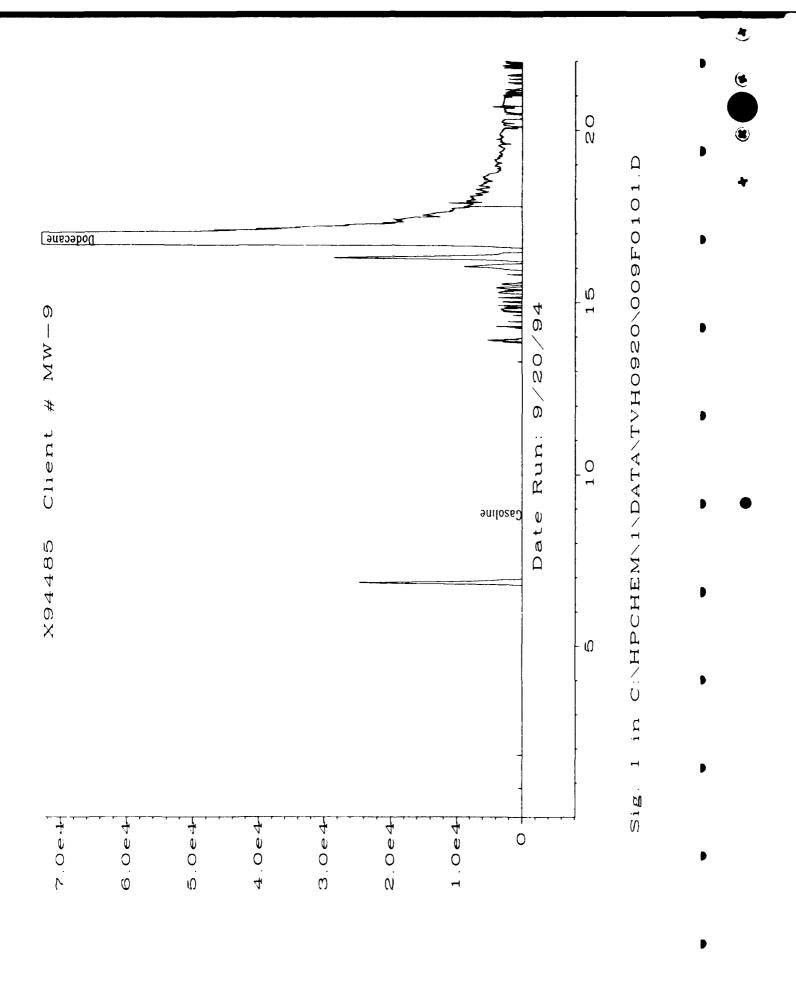
C:\HPCHEM\1\DATA\TVH0920\018F0101.D 1 in Sig.

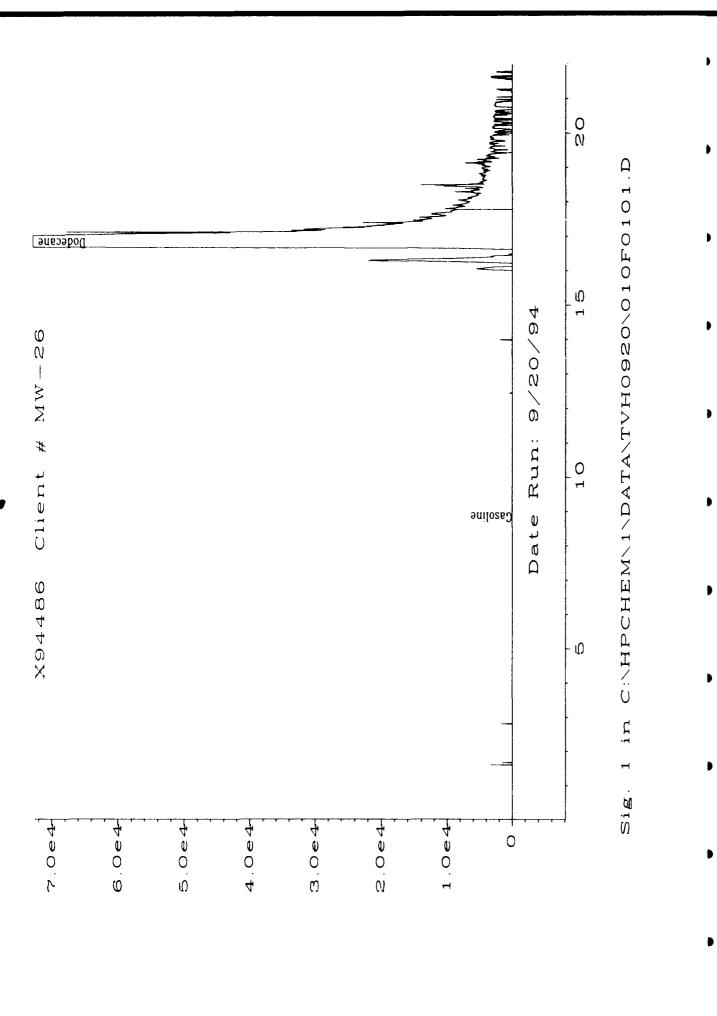


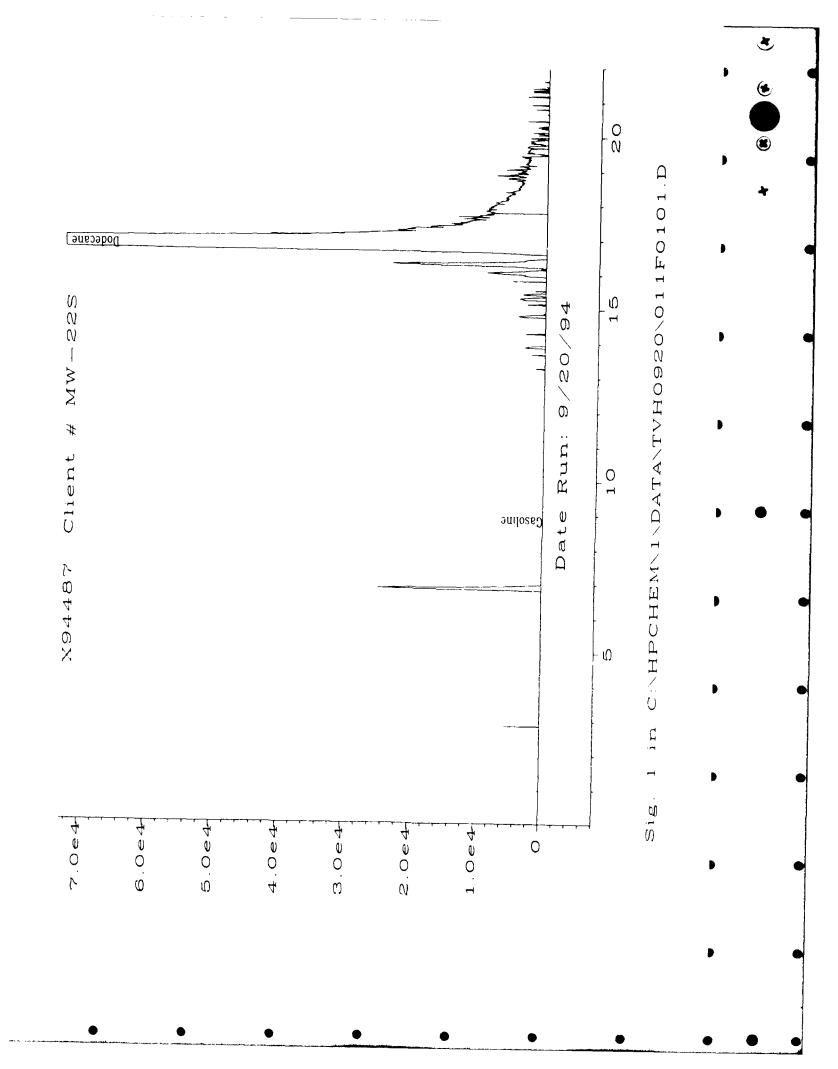


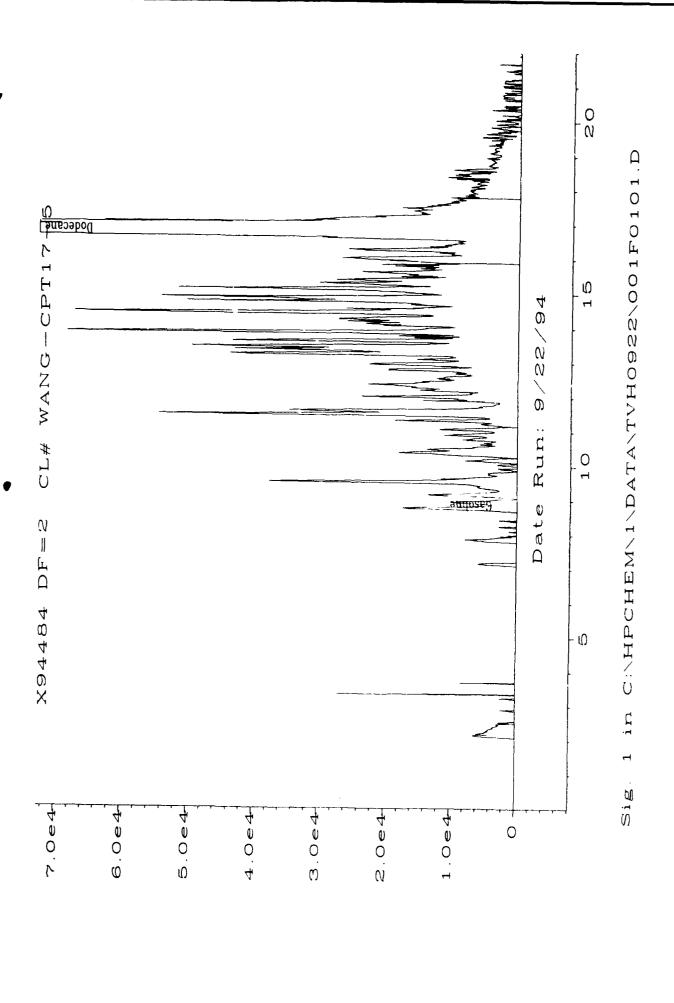












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Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL VOLATILE HYDROCARBONS TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.

: MW-17

Client Project No.

: Madison Ang

Lab Sample No.

: X94481 : 9/14/94

Lab Project No. EPA Method No.

: 94-3516 : 5030/8015 Mod.

Date Sampled
Date Received

: 9/14/94 : 9/15/94 : 9/20/94

Matrix Method Blank : Water : MB092094

Date Prepared
Date Analyzed

: 9/21/94

	Spike	Sample	MS		QC
Compound	Added	Concentration	Concentration	MS	Limits
	(mg/L)	(mg/L)	(mg/L)	%REC	%REC
Gasoline	10	0	11.2	112	60-140

	Spike	MSD			C)C
Compound	Added	Concentration	MS	RPD	Lin	nits
	(mg/L)	(mg/L)	%REC		RPD	%REC
Gasoline	10	10.7	107	4.6	50	60-140

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RPD:

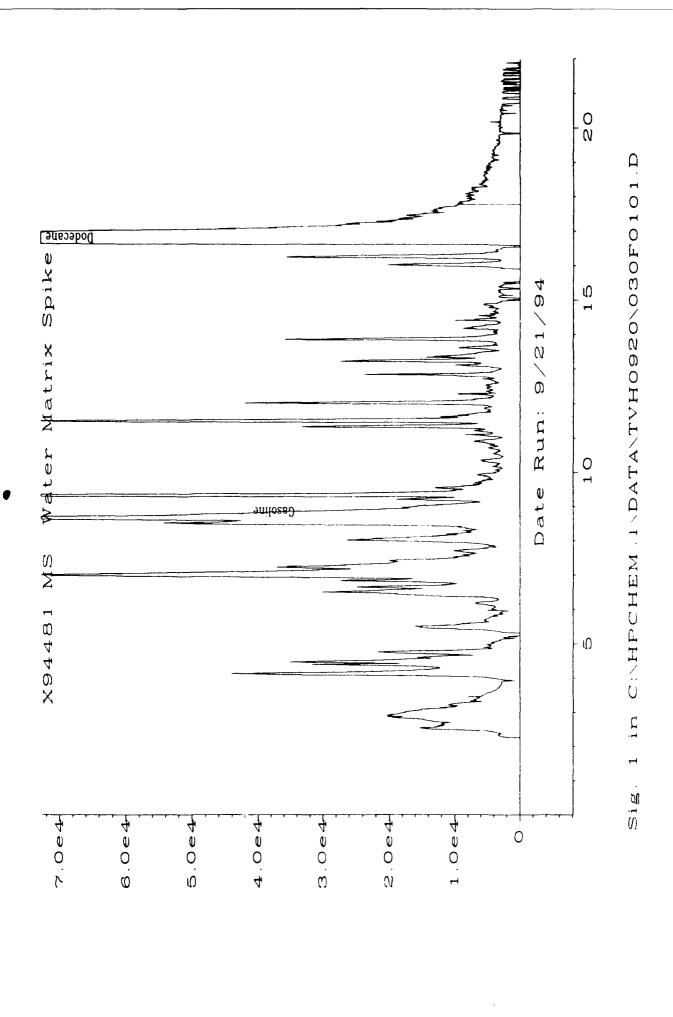
0 out of (1) outside limits.

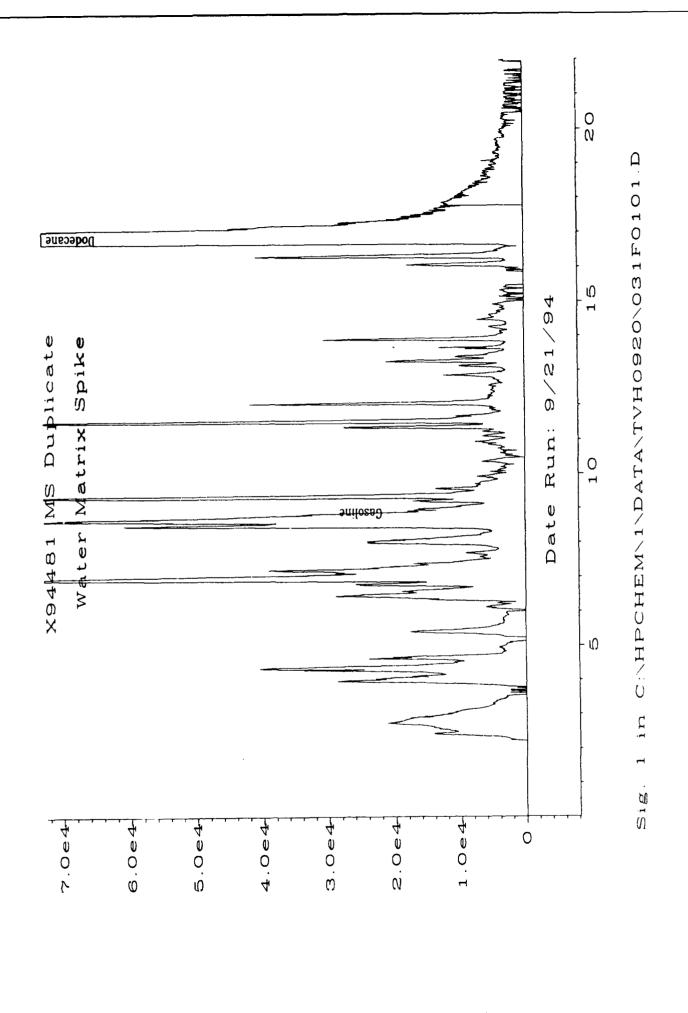
Spike Recovery:

0 out of (2) outside limits.

Comments:

NA = Not analyzed/not applicable.







TOTAL VOLATILE HYDROCARBONS (TVH) Laboratory Control Sample (LCS)

LCS Number **Date Prepared** : LCS092094 : 9/21/94

Client Project Number Lab Project Number

: Madison Ang : 94-3516

Date Analyzed

Compound

Name

Gasoline

: 9/21/94

Matrix

: Water

Sequence Number : TVH0920 Method Number : 3500/Mod. 8015

Theoretical Concentration

mg/L

5

LCS QC Limit Concentration mg/L mg/L 6.3 3.5-6.5

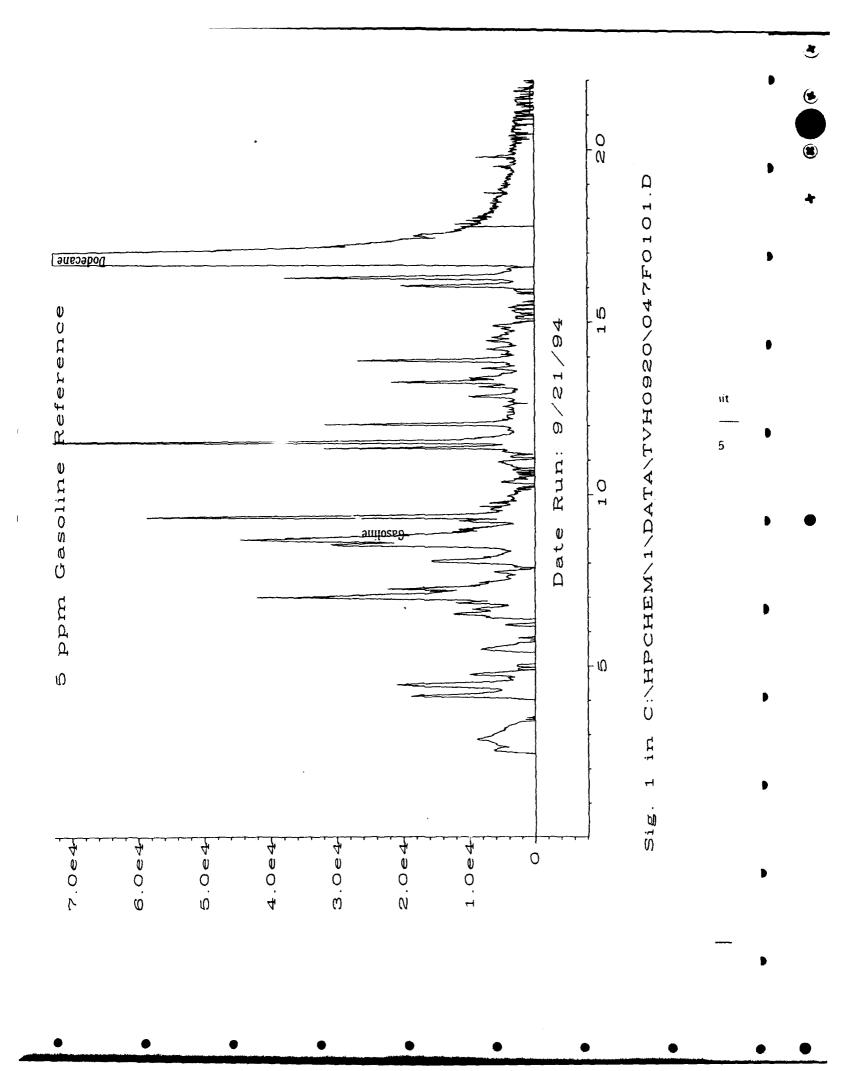
QUALIFIERS

U = TEH analyzed for but not detected.

B = TEH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

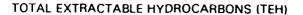
NA = Not Available.



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Date Sampled : 9/14/94 **Date Received** : 9/15/94 Date Prepared

Client Project Number Lab Project Number

: Madison Ang : 94-3516

: 9/16/94

Matrix

: Water

Date Analyzed : 9/21/94

Method Number

: 3500/Mod.8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TEH mg/L	MDL mg/L
WB091694	Water Method Blank	90%	U	0.5
X94481	MW-17	80%	U	0.5
X94482	MW-10	141%	1.4	0.5
X94483	MW-8	62%	6.2	0.5
X94485	e-wm	70%	0.5	0.5
X94486	MW-26	71%	0.5	0.5
X94487	MW-22S	76%	U	0.5

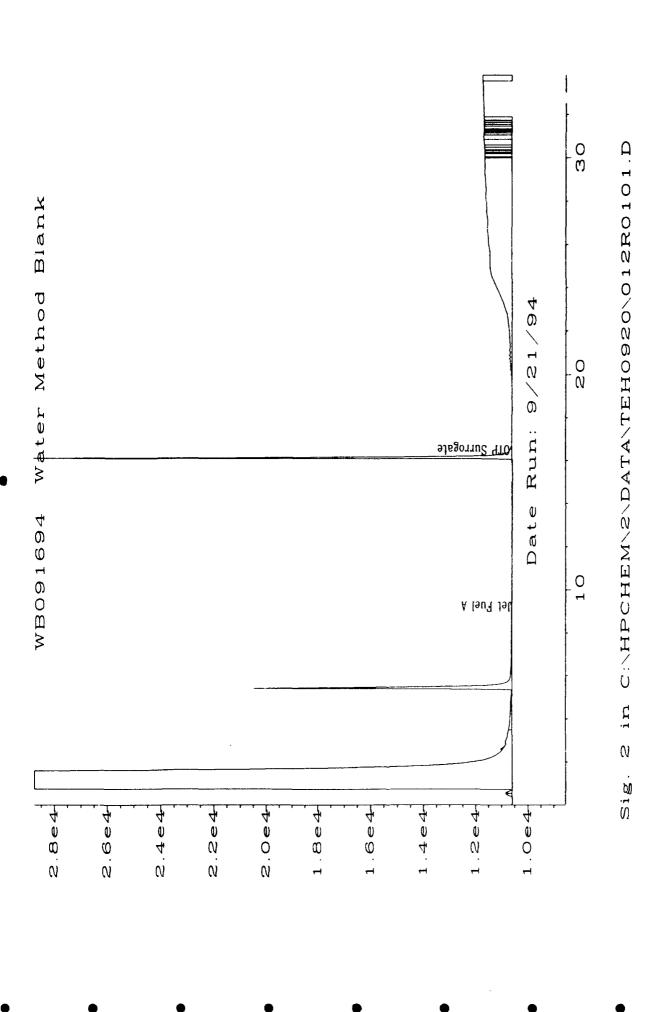
QUALIFIERS

U = TEH analyzed for but not detected.

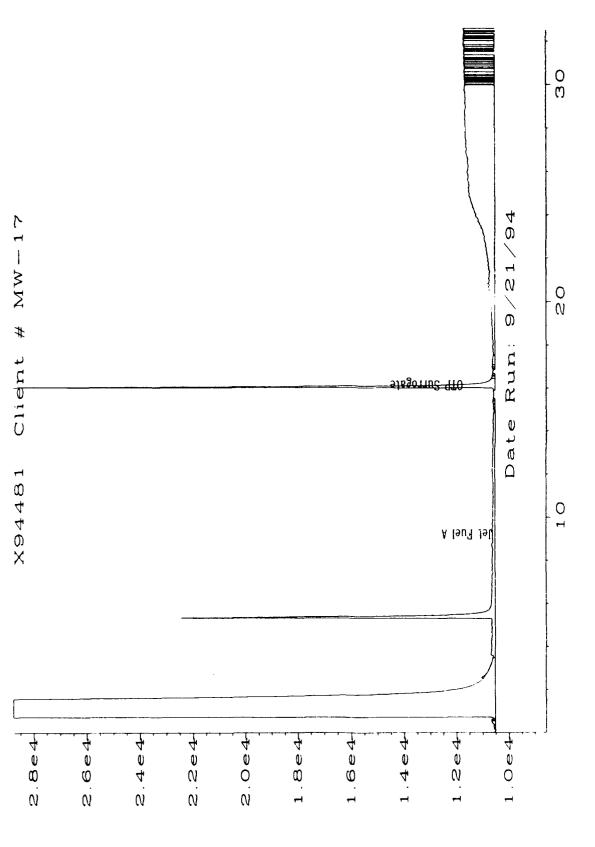
B = TEH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

MDL = Method Detection Limit

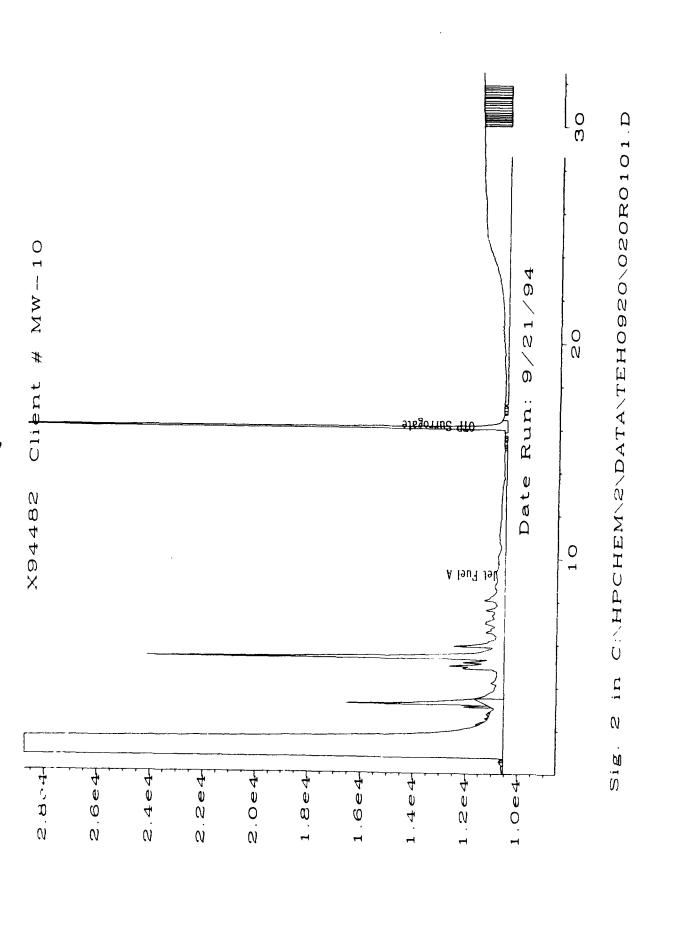


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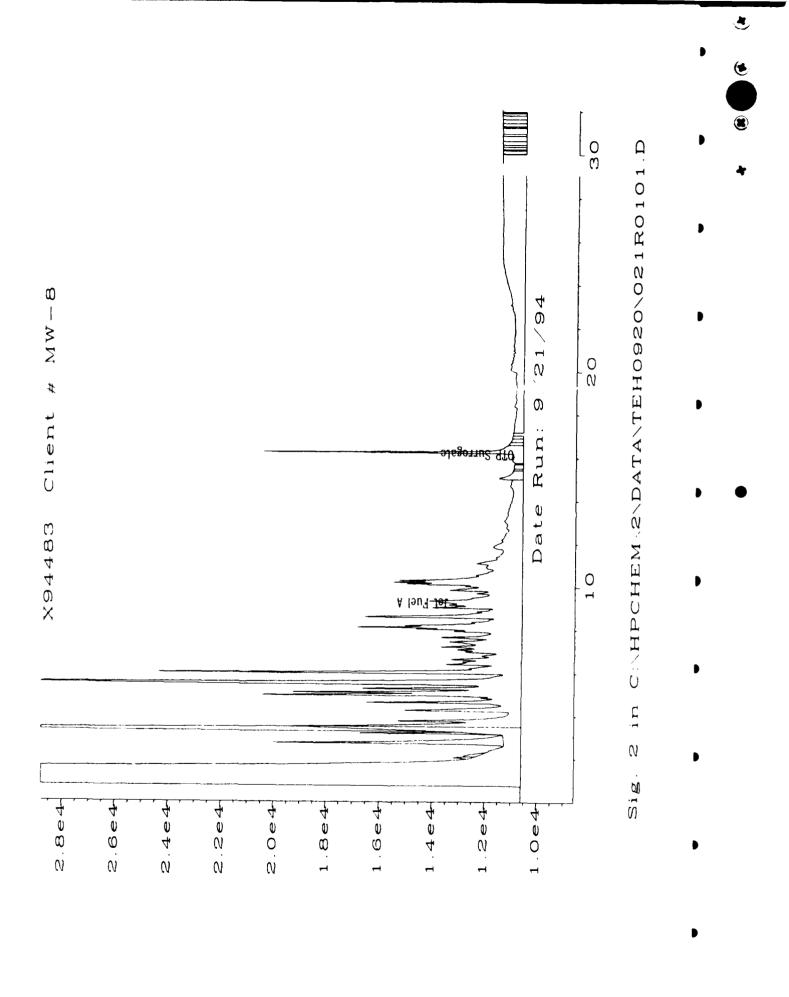
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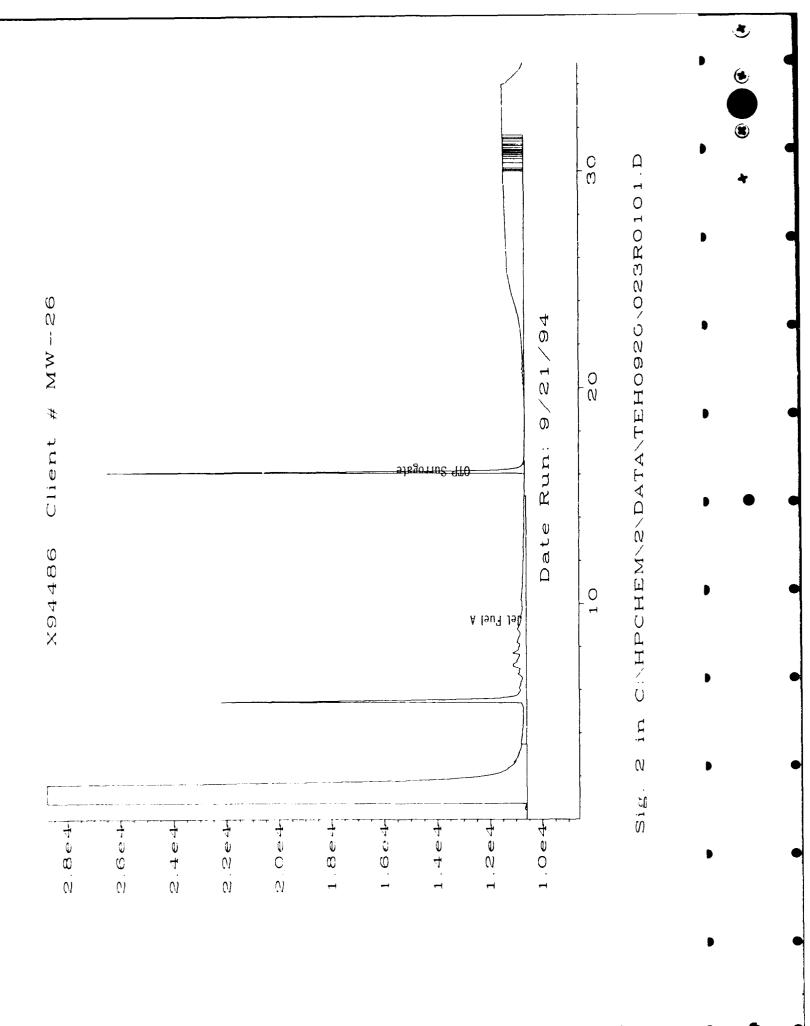
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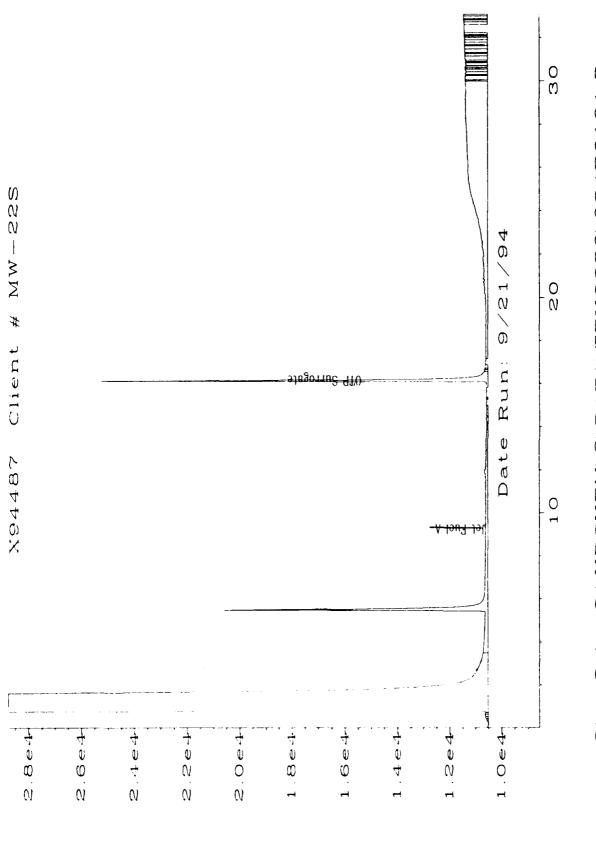
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TOTAL EXTRACTABLE HYDROCARBONS (TEH) Laboratory Control Sample (LCS)

LCS Number Date Prepared

: LCS092094 : 9/21/94 Client Project Number Lab Project Number : Madison Ang : 94-3516 : Water

Date Analyzed Sequence Number

: 9/22/94 : TEH0920

Method Number

: 3500/Mod. 8015

 Compound Name
 Theoretical Concentration mg/L
 Concentration mg/L
 QC Limit mg/L

 Jet Fuel A
 2000
 2706
 1200-2800

Matrix

QUALIFIERS

U = TEH analyzed for but not detected.

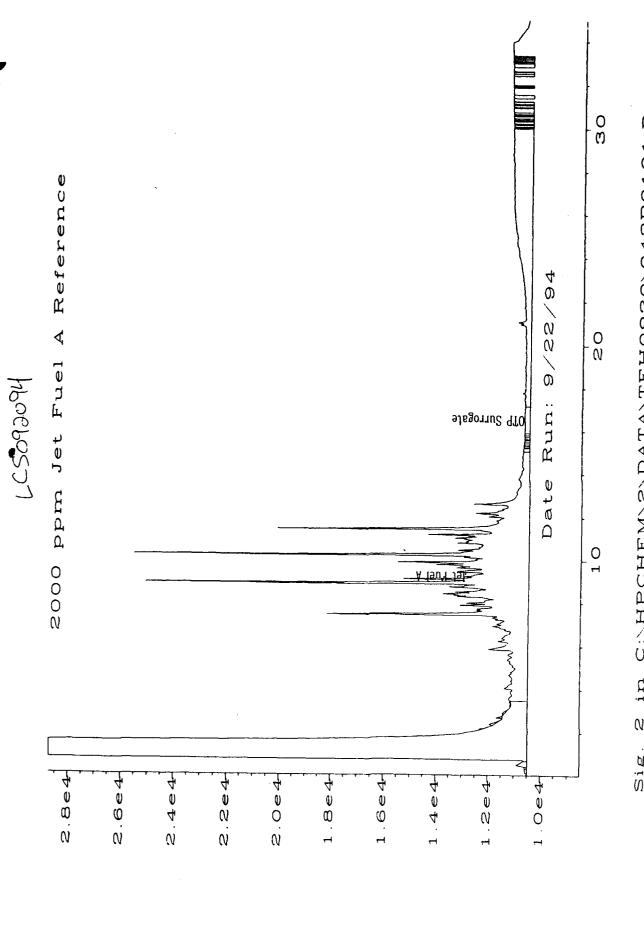
B = TEH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

NA = Not Available.

Analyst

Approved



Sig 2 in C:\HPCHEM\2\DATA\TEH0920\042R0101.D

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Methane Data Report

Client Project No.: Madison ANG

Date Sampled : 09/14/94 Lab Project No. : 94-3516
Date Received : 09/15/94 Dilution Factor : see below
Date Prepared : 09/28/94 Method : RSKSOP-175
Date Analyzed : 09/28/94 Matrix : Water

Evergreen Sample #	Client Sample #	Matrix	Concentration mg/L	EDL* mg/L
MB092894	Method Blank	Water	υ	0.001 (DF=1)
x94481	MW-17	Water	ប	0.001 (DF=1)
x94482	MW-10	Water	5.54	0.005 (DF=5)
x 94483	MW-8	Water	11.74	0.001 (DF=1)
x 94485	MW- 9	Water	0.003	0.001 (DF=1)
x94487	MW-22S	Water	0.004	0.001 (DF=1)

QUALIFIERS:

- U = Compound analyzed for, but not detected above the Estimated Detection Limit.
- B = Compound also found in the blank, blank data should be compared.
- * = Indicates the Estimated Detection Limit.
- E = Extrapolated value.

Analyst

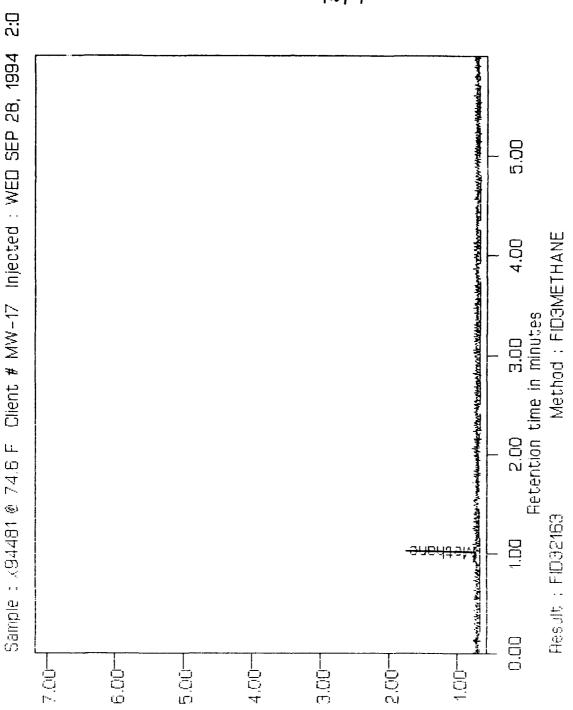
Approved

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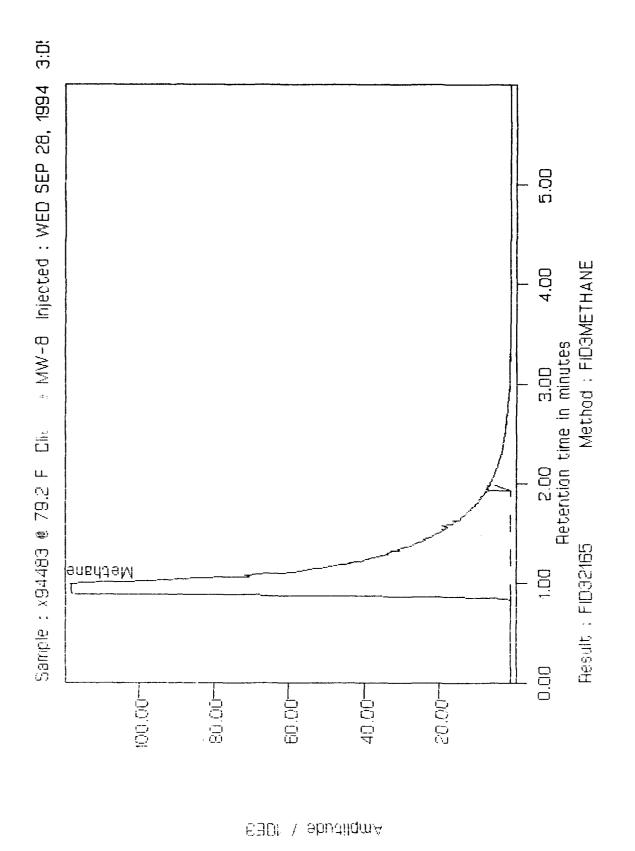


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Anions

Date Sampled : 9/14/94 Client Project ID. : Madison ANG
Date Received : 9/15/94 Lab Project No. : 94-3516
Date Prepared : 9/15/94 Method : EPA 300.0
Date Analyzed : 9/15/94 Matrix : Water

Evergreen Sample #	Client <u>Sample ID</u>	Nitrite as N (mg/L)
X94481	MW-17	<0.076
X94482	MW - 10	<0.076
X94483	MW - 8	<0.076
X94485	MW - 9	<0.076
X94487	MW-22S	<0.076
X94487 Dup	MW-22S Dup	<0.076
Method Blank	:	<0.076

Quality Assurance *

	Spike Amount (mg/L)	Sample Result <u>(mg/L)</u>	Spike Result (mg/L)	% <u>Recovery</u>
X94481 MW-17 Matrix Spike	10.0	<0.250	9.76	97.6
X94481 MW-17 Matrix Spike Duplicate	10.0	<0.250	9.92	99.2
MS/MSD RPD				1.63
X94487/X94487 Dup RPD				NC

^{*} = Quality assurance results reported as nitrite (NO₂).

NC = Not calculated because sample and/or duplicate result below detection limit.

Analyst

Approved

<u>Anions</u>

Date Sampled : 9/14/94 Client Project ID. : Madison ANG
Date Received : 9/15/94 Lab Project No. : 94-3516
Date Prepared : 9/15/94 Method : EPA 300.0
Date Analyzed : 9/15/94 Matrix : Water

Evergreen Sample #	Client <u>Sample ID</u>	Nitrate as N (mg/L)
X94481	MW-17	0.262
X94482	MW-10	<0.056
X94483	MW - 8	<0.056
X94485	MW - 9	1.39
X94487	MW-22S	0.709
X94487 Dup	MW-22S Dup	0.702
Method Blank		<0.0.56

Ouality Assurance *

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	န <u>Recovery</u>
X94481 Matrix Spike	MW-17	10.0	1.48	9.91	87.5
X94481 Matrix Spike	MW-17 Duplicate	10.0	1.48	10.3	91.3
MS/MSD	RPD				4.25
X94487/X9448	7 Dup RPD				0.96

* = Quality assurance results reported as nitrate (NO_3) .

Approved

Anions

Date Sampled	:	9/14/94	Client Project ID.	:	Madison ANG
Date Received	:	9/15/94	Lab Project No.	:	94-3516
Date Prepared	:	9/15/94	Method	:	EPA 300.0
Date Analyzed	:	9/15/94	Matrix	:	Water

Evergreen Sample #	Client <u>Sample ID</u>	Chloride (mg/L)
X94481	MW-17	3.19
X94482	MW -10	4.95
X94483	MW - 8	6.62
X94485	MW - 9	26.0
X94487	MW-22S	33.6
X94487 Dup	MW-22S Dup	34.5
) Method Blank	:	<0.250

Quality Assurance

	Spike Amount (mg/L)	Sample Result <u>(mg/L)</u>	Spike Result <u>(mg/L)</u>	% <u>Recovery</u>
X94481 MW-17 Matrix Spike	10.0	3.19	11.8	86.2
X94481 MW-17 Matrix Spike Duplicate	10.0	3.19	12.4	92.6
MS/MSD RPD				7.16
X94487/X94487 Dup RPD				2.41

Analyst

Approved

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<u>Anions</u>

Date Sampled : 9/14/94 Client Project ID. : Madison ANG Date Received : 9/15/94 Lab Project No. : 94-3516 Date Prepared : 9/15/94 Method : EPA 300 CDate Analyzed : 9/15/94 Matrix : Water

Evergreen <u>Sample #</u>	Client <u>Sample ID</u>	Sulfate (mg/L)
X94481	MW-17	15.2
X94482	MW-10	1.56
X94483	MW - 8	1.26
X94485	Mw - 9	20.0
X94487	MW-22S	38.5
X94487 Dup	MW-22S Dup	38.8
Method Blank		<0.250

Quality Assurance

	Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% <u>Recovery</u>
X94481 MW-17 Matrix Spike	10.0	15.2	24.7	95.0
X94481 MW-17 Matrix Spike Duplicate	10.0	1.52	25.0	98.1
MS/MSD RPD				3.21
X94487/X94487 Dup RPD				0.80

Analyst

Approved

Miscellaneous Analyses

Date	Sampled	:	9/14/94	Client Project ID.	:	Madison ANG
Date	Received		9/15/94	Lab Project No		94-3516

: 94-3510 : 5.00 mgCaCO₃/L : EPA 310.1 Date Prepared: 9/16/94
Date Analyzed: 9/16/94 Matrix Method

Evergreen <u>Sample</u> #	Client <u>Sample ID</u>	<u>Matrix</u>	Total Alkalinity _(mgCaCO ₃ /L)
X94481	MW-17	Water	281
X94481 Dup	MW-17 Dup	Water	279
X94482	MW-10	Water	287
X94483	MW - 8	Water	565
X94485	MW - 9	Water	401
X94487	MW-22S	Water	313

Method Blank (9-16-94)

<5.00

Quality Assurance

	True Value (mgCaCO ₃ /L)	Result (mgCaCO ₃ /L)	% Recovery
Spex Reference Lot WP1290 Minerals	24.2	21.7	89.7
X94481/X94481 Dup RPD			0.71

Approved



LABORATORIES, INC.

Quality Analytical Services Since 1936 4630 Indiana Street • Colden, CO 80403

NON-CLP ANALYSIS RESULTS

Date: Lab Name: 10/26/94

rev01 **Huffman Labs**

Client: Evergreen Analytical

Contact:

Sue Zeller

Contact: Mark Mensik

Sample Matrix:

soils

Huffman Lab #: 271294

Client	Lab	Element/	Dilution	Results	Units	Prep	Analysis	Sample	Method	Instrumen
Smp#	ID#	Compound	Factor			Date	Date	Size (g)	#	ID
ELS-MW26-24	27129401	TC	NA	1.43	%	NA	09/19/94	0.642	Leco CR12	#7
ELS-MW26-24	27129401	TC	NA	1.39	%	NA	09/19/94	1.299	Le∞ CR12	#7
ELS-MW26-24	27129401	СС	NA	1.01	%	NA	10/05/94	0.108	COU-02	#3
ELS-MW26-24	27129401	CC	NA	1.09	%	NA	10/05/94	0.071	COU-02	#3
ELS-MW26-24	27129401	TOC	NA	0.42	%	NA	NA	NA	by calc	NA
ELS-MW26-24	27129401	TOC	NA	0.30	%	NA	NA	NA	by calc	NA

Samples analyzed and results reported on as as received basis.

Soil samples are not homogeneous.

TC detection limit = 0.05%

CC detection limit = 0.02%

TOC detection limit = 0.05%

Client	t Lab	Element/	Dilution	Results	Units	Prep	Analysis	Sample	Method	Instrum
Smp#	# ID#	Compound	Factor			Date	Date	Size (ml)	#	
MW-UNK	27129402	DOC	NA	5.5	mg/L	NA	10/08/94	10	SM53100	#6
MW-9	27129403	DOC	NA	9.6	mg/L	NA	10/08/94	10	SM5310D	#6
MW-9	27129403	DOC	NA	11.1	mg/L	NA	10/08/94	10	SM5310D	#6
MW-10	27129404	DOC	NA	8.9	mg/L	NA	10/08/94	10	SM5310D	#6
MW-13	3 27129405	DOC	NA	2.1	mg/L	NA	10/08/94	10	SM53100	#6
MW-16	27129406	DOC	NA	38.0	ma/L	NA	10/08/94	10	SM5310D	#6

TOC detection limit = 0.5 mg/L

Evergreen Analytical Sample Log Sheet Project # 94-3553 Date(s) Sampled: 09/16/94 COC Date Due: 10/03/94 e Received: 09/17/94 1100 Holding Time(s): 09/18-NO₂, NO₃, 09/23-TEH, METHANE 09/30-BTEX, TVH, ALKALINITY Client Project I.D. Madison ANC Rush STANDARD Client: Engineering Science, Inc. Shipping Charges N/A Address: 1700 Broadway Suite 900 **E.A.** Cooler # 235,361 Denver, CO 80290 **Airbill #** 9581893016 FEDEX Contact: Gail Saxton Custody Seal Intact? Cooler X Bottles Client P.O. 722450.09020 COC Present Y Sample Tags Present? Y Phone #831-8100 Fax #831-8208 Sample Tags Listed? Y Sample(s) Sealed? Special Instructions REPORT ALL SAMPLES IN DRY WEIGHT Lab Client ID # ID# <u>Analysis</u> Mtx Btl Loc X94666A/B CPT-1D BTEX+TMB W 40V X94669A/B CPT-5S BTEX+TMB W 40V CPT-5D X94670A/B BTEX+TMB W 40V CPT-19S 1672A/B BTEX+TMB W 40V 2 х94676A/B CPT-20 BTEX+TMB W 40V 2 TRIP_BLANK X94677A BTEX+TMB W 40V 2 X94667A/B WANG-CPT3-5 BTEX (INCLUDES MS/MSD) S 2WM 2 S X94668A WANG-CPT20-6.8 BTEX 2WM X94671A WANG-CPT10-5.5 BTEX S 2WM X94673A WANG-CPT7-7.8 BTEX S 2WM X94674A WANG-CPT21-6 BTEX S 2WM X94675A WANG-CPT9-5.5 BTEX S 2WM X94666C/D CPT-1D TVH W 40V 2 ** X94669C/D CPT-5S W 40V 2 . CPT-5D X94670C/D W 40V 2 11 CPT-19S X94672C/D W 40V 2 ** X94676C/D CPT-20 W 40V

n=Sample to be returned

X94667C/D WANG-CPT3-5

WANG-CPT20-6.8

WANG-CPT10-5.5

WANG-CPT7-7.8

X94668B

X94671B

4673B

Route GC/MS __ GC 4 Metals __ Wet Chem 2 SxPrep 1 Acctg 1
To MJM 1 SxRec C QA/QC C Sales C File Oriq

11

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(INCLUDES MS/MSD)

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2WM

2WM

2WM

2WM

Page 1 of 2 Page(s)

Custodian/Date: MM PLB 9/17

Lab [↑#	Client ID#	Analysis	Mtx	Btl	Loc
			****		`
1.674B	WANG-CPT21-6	TVH	S	2WM	2
K94675B	WANG-CPT9-5.5		S	2WM	_ 2
(94666J	CPT-1D	TEH	W	1LA	2
(94670J	CPT-5D		<u> </u>	1LA	2
K94671J	CPT-19S	10	<u> </u>	1LA	2
K94672J	CPT-20		7.*	1LA	2
(94667E/F	WANG-CPT3-5	" (INCLUDES MS/M	ISD) S	2WM	2
(94668C	WANG-CPT20-6.8		S	2WM	2
(94671C	WANG-CPT10-5.5	11	<u> </u>	2WM	2
(94673C	WANG-CPT7-7.8	et .	S	2WM	2
K94674C	WANG-CPT21-6	**	<u></u>	2WM	2
K94675C	WANG-CPT9-5.5	11	S	2WM	2
K94666E-G	CPT-1D	METHANE	W	40V	2
K94669E-G	CPT-5S	11	W	40V	2
K94670E-G	CPT-5D	11	W	40V	2
K94672E-G	CPT-19S	11	W	40V	_2
×94676E-G	CPT-20	te	W	40V	_2
₹ 666H	CPT-1D	C1, NO2, NO3, SO4	W	125P	D4
(94669H	CPT-5S	11	W	125P	11
94670C/D	CPT-5D	11	W	125P	11
(94672C/D	CPT-19S		W	125P	`
(94676C/D	CPT-20	11	W	125P	11
(94666	CPT-1D	ALKALINITY	W		11
94670C/D	CPT-5D	**	W	40V	11
K94672C/D	CPT-19S	11	W	40V	11
K94676C/D	CPT-20	31	W	40V	11
K94666		DISSOLVED ORGANIC CARBON	W	· · · · · · · · · · · · · · · · · ·	OUT
K94667	WANG-CPT3-5	TOC (INCLUDES MS/M	,		OUT
X94675	WANG-CPT9-5.5	11	S		OUT

Page 2 of 2 Pages Project # 94-3553

R=Sample to be returned

MS/MSD comountholled COMPANY CONTACT (print) Mith SIGUSON Notes expedited turnaround subject to additional fee 30 days PROJECTIO MCCISON AND P.O. # 713345D 09020 TURNAROUND REQUIRED. CHAIN OF CUSTODY RECORD / / ALYTICAL SERVICES REQUEST > > Total Metals-DW/WPDE (circle & list metals below) Dissolved Metals of NW/C ANALYSIS/REQUESTED TEH 8015mod. (Diesel) TVH 8015mod. (Gasoline) TRPH 418.1/Oil & Grease 413.1 (circle) 4036 Younglield Wheat Ridge, Colorado 80033 (303) 425-6021 FAX (303) 425-6854 80 BIEX 8020/602 (circle) MIBE (circle) FAX RESULTS Y 1 🚱 Evergreen Analytical Inc. PCB 8080/PCB Screen (circle) Herbicides 8150/575 (cicle) Pesi/PCBs 8080/608/508 (circle) Pesticides 8080/608 (circle) FAX# 303-831-8208 Multiphase (identify phase to be analyzed) Oil/Organic Liquid (circle) MATRIX Sludge/Slurry (circle) Solid (circle) 12.20 |D ||X STATE (0 ZIP 80290 8:30,19 1:30 13:00 3 13:45 N No. of Containers 18:30° 1 Short (print) Saskia Hoffer, Mott Surason BOOK Tone Moutoux 27:12 SAMPLED TIME COMPANY ENGINEATING SCIENCE 361 Evergreen Analytical Cooler No 77235 + Bradwa 1500 H 16/49 PHONE # 303-831-8100 NAMB-CD13-538 191 WHIS-CPT20-6.8" MANA-CPT7-7.8 MANG-CPTID-5,5 IDENTIFICATION (signature) July de ADDRESS (TD) CITY LENVER Sampler Name: SAMPLE CPT-17 APT-195 191-51

Relinquished by: Righ ure)	Pate/Time	Received by: (Signature)	9 Date/Time Relinquished by: (Signature) Date/Time Received by: (Signature)	e) Date/Time	Received by: (Signature)	Date/Time
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CHAIN OF CUSTODY RECORD / / LYTICAL SERVICES REQUEST

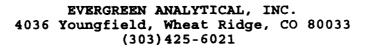
Evergreen Analytical Inc.

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STATE STATE	ì
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MPANY ELLING DRESS (700 The Druge (100)	
SAMPLE SAMPLE STORY IN ANALYTICA TO THE SAMPLE SAMP	· }
Sen and Sen an	
COMPANY ENGINEER STATE CO. 21P B PHONE # 203-931-6700 ZIP B PHONE # 203-931	,

Date/Time

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Evergreen Analytical Sample Receipt/Check-in Record
Date & Time Rec'd: 9/14/94 //80 Shipped Via: 400 958/8930
Client: Na! Nevana Science (Airbill # if applicable)
Client Project ID(s): Made Son ANG
EAL Project #(s):94- 3533 EAL Cooler(s): Y N
Cooler# 36/ 235
Ice packs Y N Y N Y N Y N
Temperature °C 6. 0 4.0
Y N N/A
1. Custody seal(s) present: Seals on cooler intact Seals on bottle intact
2. Chain of Custody present:
3. Containers broken or leaking: (Comment on COC if Y)
4. Containers labeled:
5. COC agrees w/ bottles received: (Comment on COC if N)
6. COC agrees w/ labels: (Comment on COC if N)
7. Headspace in VOA vials-waters only (comment on COC if Y)
8. VOA samples preserved:
9. pH measured on metals, cyanide or phenolics*:
10. Metal samples present:
Total, Dissolved D or PD to be filtered:
T,TR,D,PD to be Preserved:
11. Short holding times: Specify parameters
12. Multi-phase sample(s) present:
13. COC signed w/ date/time:
Comments:
(Additional comments on back) Custodian Signature/Date:
9/17/94



Methane Data Report

Client Project No.: Madison ANG

Date Sampled : 09/16/94 Lab Project No. : 94-3553

Date Received : 09/17/94 Dilution Factor : see below
Date Prepared : 10/01/94 Method : RSKSOP-175

Date Analyzed : 10/01/94 Matrix : Water

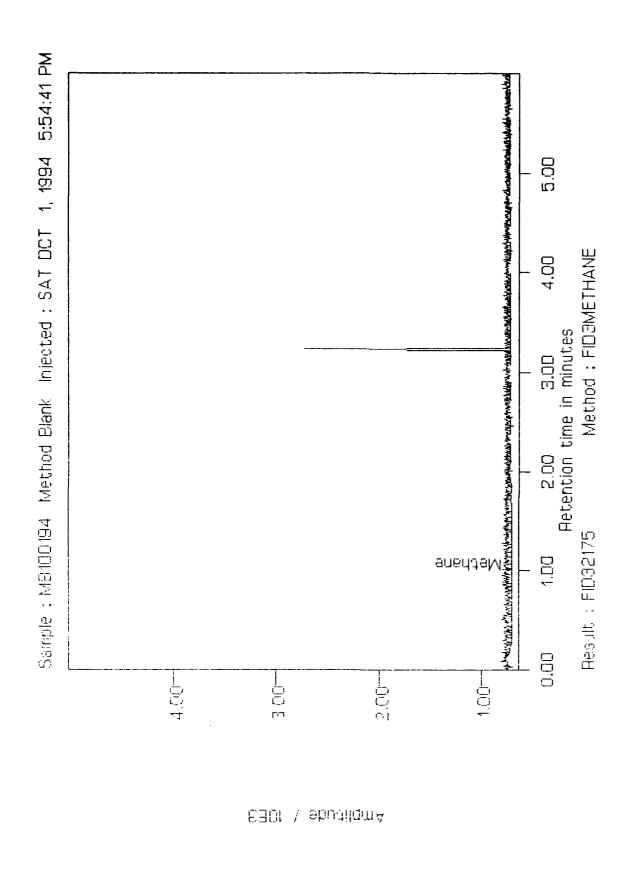
Evergreen Sample #	Client Sample #	Matrix	Concentration mg/L	EDL* mg/L
MB100194	Method Blank	Water	υ	0.001 (DF=1)
x 94666	CPT-1D	Water	U	0.001 (DF=1)
x 94669	CPT-5S	Water	0.17	0.01 (DF=10)
x 94670	CPT-5D	Water	0.13	0.01 (DF=10)
x 94672	CPT-19S	Water	0.02	0.01 (DF=10)
x 94676	CPT-20	Water	ប	0.001 (DF=1)

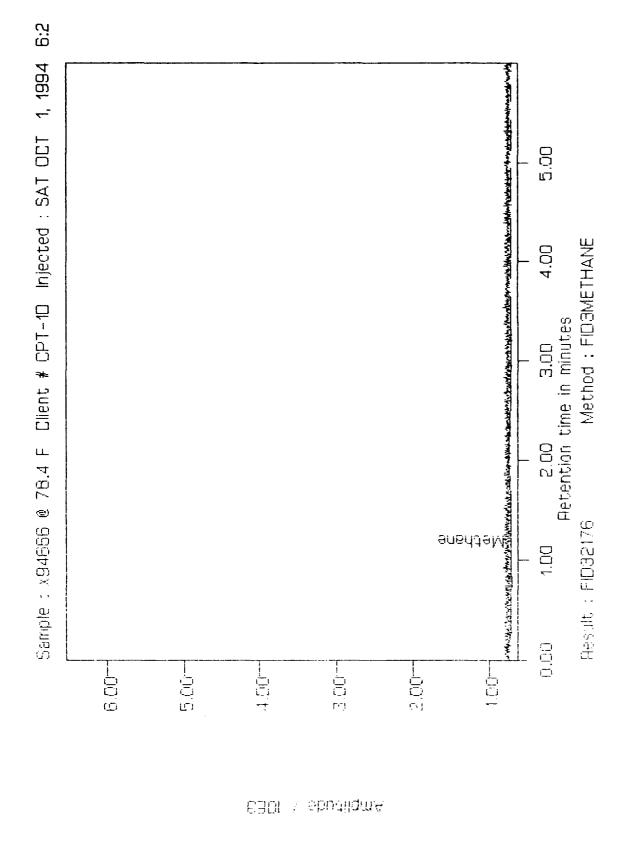
QUALIFIERS:

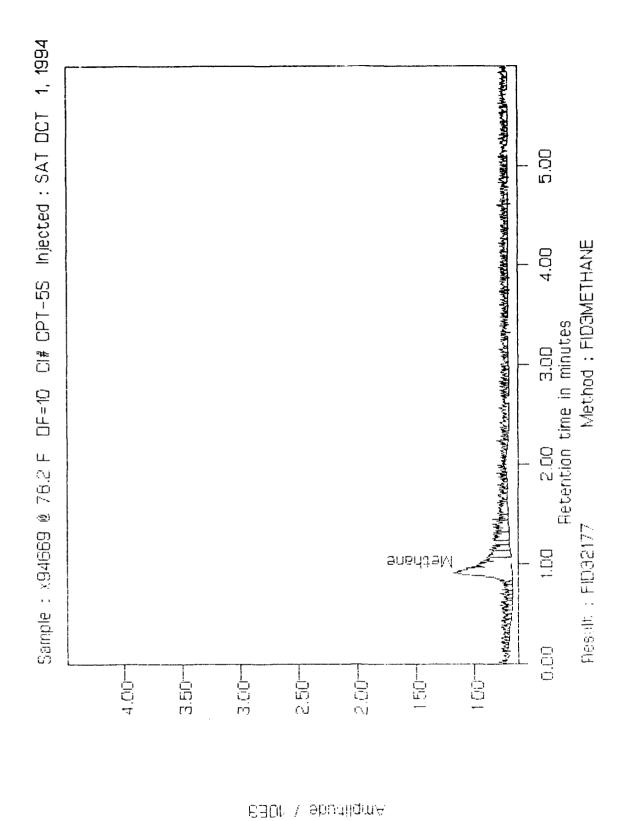
- U = Compound analyzed for, but not detected above the Estimated Detection Limit.
- B = Compound also found in the blank, blank data should be compared.
- * = Indicates the Estimated Detection Limit.
- E = Extrapolated value.

Malyst

Approved







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(8)

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EBON / abudilqmA

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EBON \ sbudilqmA

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3

Anions

Date Sampled	:	9/16/94	Client Project ID.	:	Madison ANG
Date Received	:	9/17/94	Lab Project No.	:	94-3553
Date Prepared	:	9/20/94	Method	:	EPA 300.0
Date Analyzed	:	9/20,21/94	Matrix	:	Water

Evergreen <u>Sample #</u>	Client <u>Sample ID</u>	Sulfate (mg/L)
X94666 X94669 X94670 X94672 X94676 X94676 (dup)	CPT-1D CPT-5S CPT-5D CPT-19S CPT-20 CPT-20 (dup)	45.2 5.01 6.83 25.3 17.0
Method Blank Method Blank		<0.250 <0.250

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% <u>Recovery</u>
X94676 Matrix Spike	CPT-20	10.0	17.0	27.0	99.9
X94676 Matrix Spike	CPT-20 Dup	10.0	17.0	26.3	93.1
MS/MSD	RPD				7.05
X94676/X9467	6 Dup RPD				0

Analyst

Approved

Anions

Date Sampled : 9/16/94 Client Project ID. : Madison ANG
Date Received : 9/17/94 Lab Project No. : 94-3553
Date Prepared : 9/20/94 Method : EPA 300.0
Date Analyzed : 9/20,21/94 Matrix : Water

Evergreen Sample #	Client Sample ID	Chloride (mg/L)
X94666 X94669 X94670 X94672 X94676 X94676 (dup)	CPT-1D CPT-5S CPT-5D CPT-19S CPT-20 CPT-20 (dup)	15.3 16.9 16.3 30.1 1.85
Method Blank	(9/20/94)	<0.250
Method Blank	(9/21/94)	<0.250

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% <u>Recovery</u>
X94676 Matrix Spike	CPT-20	10.0	1.85	11.4	95.5
X94676 Matrix Spike	CPT-20 Dup	10.0	1.85	11.1	92.1
MS/MSD	RPD				3.62
X94676/X94676 Dup RPD					1.63

Analyst

Approved

Anions

Date Sampled : 9/16/94 Client Project ID. : Madison ANG Lab Project No. : 94-3553 Method : EPA 300.0 Date Received: 9/17/94 Date Prepared: 9/18/94 Method Matrix Date Analyzed: 9/18/94 : Water

Evergreen Sample #	Client Sample ID	Nitrite as N (mg/L)
X94666 X94669	CPT-1D CPT-5S	<0.076 <0.076
X94670 X94672	CPT-5D CPT-19S	<0.076 <0.076 <0.076
X94676 X94676 (dup)	CPT-20 CPT-20 (dup)	<0.076
Method Blank	(9/18/94)	<0.076

Quality Assurance *

		Spike Amount <u>(mg/L)</u>	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X94669 Matrix Spike	CPT-5S	10.0	<0.250	9.24	92.4
X94669 Matrix Spike	CPT-5S Dup	10.0	<0.250	9.28	92.8
MS/MSD	RPD				0.043
X94676/X94676 Dup RPD					

NC = Not calculated because sample and/or sample duplicate is below detection limit.

* = Quality assurance results reported as nitrite (NO₂).

Approved

Anions

Date Sampled	:	9/16/94	Client Project ID.	:	Madison ANG
Date Received	:	9/17/94	Lab Project No.	:	94-3553
Date Prepared	:	9/18/94	Method	:	EPA 300.0
Date Analyzed	:	9/18/94	Matrix	:	Water

Evergreen	Client					
Sample #	Sample ID	Nitrate as N (mg/L)				
X94666	CPT-1D	0.790				
X94669	CPT-5S	0.136				
X94670	CPT-5D	0.100				
X94672	CPT-19S	0.101				
X94676	CPT-20	10.7				
X94676 (dup)	CPT-20 (dup)	10.5				
_	-					
Method Blank	(9/18/94)	<0.056				
Method Blank	(9/18/94)	<0.056				

Quality Assurance *

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result <u>(mg/L)</u>	% <u>Recovery</u>
X94669 Matrix Spike	CPT-5S	10.0	0.603	9.25	86.5
X94669 Matrix Spike	CPT-5S Dup	10.0	0.603	9.12	85.2
MS/MSD	RPD				1.51
X94676/X9467	6 Dup RPD				1.17

* Quality assurance results reported as nitrate (NO₃)

Analyst

Approved

3553tm.25

Miscellaneous Analyses

Date Sampled : 9/16/94	Client Project ID.	: Madison ANG
Date Received : 9/17/94		: 94-3553
Date Prepared : 9/22/94	Matrix	: 5.00 mgCaCO,/L
Date Analyzed: 9/22/94	Method	: EPA 310.1

Evergreen Sample #	Client <u>Sample ID</u>	<u>Matrix</u>	Total Alkalinity (mgCaCO ₃ /L)
X94666	CPT-1D	Water	473
X94666 Dup	CPT-1D Dup	Water	464
X94670	CPT-5D	Water	424
X94672	CPT-19S	Water	450
X94676	CPT-20	Water	378
Method Blank	(9-22-94)		<5.00

Quality Assurance

	Ture Value (mgCaCO ₃ /L)	Result (mgCaCO ₃ /L)	% <u>Recovery</u>
Spex Reference Lot WP 1290 Minerals	24.2	21.8	90.0
X94666/X94666 dup RPD			1.92

Analyst By

Approved

3553tm.4



LABORATORIES, INC.

Quality Analytical Services Since 1936 4630 Indiana Street • Golden, CO 80403

NON-CLP ANALYSIS RESULTS

Date:

10/26/94

rev01

Lab Name: Contact: Huffman Labs

Client: Evergreen Analytical

Sue Zeller

Contact: Mark Mensik

Sample Matrix:

soils

Huffman Lab #: 273494

Client		Element/	Dilution	Results	Units	Prep	Analysis	Sample	Method	instrument
Smp#	1D#	Compound	Factor			Date	Date	Size (g)	#	ID
WANG-CPT2-7	27349401	TC	NA	2.20	%	NA	10/08/94	0.851	Leco CR12	#7
WANG-CPT2-7	27349401	TC	NA	2.81	%	NA	10/08/94	0.565	Leco CR12	#7
WANG-CPT3-5	27349402	TC	NA	2.13	%	NA	10/08/94	0.359	Leco CR12	#7
WANG-CPT3-5*	27349403	TC	NA	3.36	%	NA	10/08/94	0.489	Leco CR12	#7
WANG-CPT9-5.5	27349404	TC	NA	2.81	%	NA	10/08/94	0.415	Leco CR12	#7
WANG-CPT18-4.5	27349405	TC	NA	0.93	%	NA	10/08/94	0.510	Leco CR12	#7
WANG-CPT2-7	27349401	СС	NA	1.68	%	NA	10/05/94	0.070	COU-02	#3
WANG-CPT2-7	27349401	CC	NA	2.27	%	NA	10/05/94	0.072	COU-02	#3
WANG-CPT3-5	27349402	CC	NA	2.05	%	NA	10/05/94	0.078	COU-02	#3
WANG-CPT3-5*	27349403	CC	NA	3.32	%	NA	10/05/94	0.030	COU-02	#3
WANG-CPT9-5.5	27349404	CC	NA	3.00	%	NA	10/05/94	0.034	COU-02	#3
WANG-CPT18-4.5	27349405	CC	NA	0.75	%	NA	10/05/94	0.063	COU-02	#3
WANG-CPT2-7	27349401	тос	NA	0.52	%	NA	NA	NA	by calc	NA
♥ WANG-CPT2-7	27349401	TOC	NA	0.54	%	NA	NA	NA	by calc	NA
WANG-CPT3-5	27349402	TOC	NA	0.08	%	NA	NA	NA	by calc	NA
WANG-CPT3-5	27349403	TOC	NA	< 0.05	%	NA	NA	NA	by calc	NA
WANG-CPT9-5.5	27349404	TOC	NA	< 0.05	%	NA	NA	NA	by calc	NA
WANG-CPT18-4.5	27349405	TOC	NA	0.18	%	NA	NA	NA	by calc	NA

*(MS/MSD)

Samples analyzed and results reported on as as received basis.

Soil samples are not homogeneous.

TC detection limit = 0.05%
CC detection limit = 0.02%
TOC detection limit = 0.05%

Client Smp#	Lab ID#	Element/ Compound	Dilution Factor	Results	Units	Prep Date	Analysis Date	Sample Size (ml)	Method #	Instrument ID
 CPT-1D	27349406	DOC	NA	8.6	mg/L	NA	10/08/94	10	SM53100	#6
CPT-1D	27349406	DOC	NA	8.7	mg/L	NA	10/08/94	10	SM5310D	#5
HP CPT-3	27349407	DOC	NA	2.5	mg/L	NA	10/08/94	10	SM53100	#6

DOC detection limit = 0.5 mg/L



LABORATORIES, INC.

Quality Analytical Services Since 1936 4630 Indiana Street • Golden, CO 80403

NON-CLP ANALYSIS RESULTS LABORATORY CONTROL STANDARD

Date:

10/26/94

ray01

Client: Evergreen Analytical

Huffman Labs

Contact: Mark Mensik

Lab Name: Contact:

Sue Zeller Huffman Lab #: 273494

LABORATORY CONTROL STANDARD

Lab	Source	Element/	True	Found	% R	Units		Method	instrument
ID #		Compound	Value	Value			Date	#	ID
LCS	BN 4384	TC	3.35	3.37	101	%	10/08/94	Leco CR12	#7
LCS	BN 4056	CC	11.33	11.28	100	%	10/05/94	COU-02	#3
LCS	BN 99	DOC	5	5.8	116	mg/L	10/08/94	SM 53100	#6

SPIKE RECOVERY

Lab	Source	Element/	True	Found	% R	Units		Method	Instrument
ID #		Compound	Value	Value			Date	#	ID
SPIKE	BN 3716	TC	12840	12309	96	ug C	10/08/94	Leco CR12	#7
SPIKE DUP	BN 3716	TC	14880	15608	105	ug C	10/08/94	Leco CR12	#7
SPIKE	BN 3716	CC	1310	1410	108	ug C	10/05/94	COU-02	#3
SPIKE DUP	BN 3716	CC	1174	1264	108	ug C	10/05/94	COU-02	#3
SPIKE	PD 8/9/94	DOC	25	23.6	94	mg/L	10/08/94	SM 53100	#6
SPIKE DUP	PD 8/9/94	DOC	25	27.6	110	mg/L	10/08/94	SM 53100	#6



LABORATORIES, INC.

Quality Analytical Services Since 1936 4630 Indiana Street • Golden, CO 80403

NON-CLP QA/QC ANALYSIS RESULTS INITIAL AND CONTINUING CALIBRATION VERIFICATION

Date:

10/26/94

rev01

Client: Evergreen Analytical

Lab Name:

Huffman Labs

Contact: Mark Mensik

Contact:

Sue Zeller Huffman Lab #: 273494

INITIAL CALIBRATION

Instrument	Method		Units	% R	Found	True	Element/	Source	Lab
ID	#	Date			Value	Value	Compound		ID#
#7	Leco CR12	10/08/94	%	100	12.02	12.00	TC	BN 3716	ICS
#3	COU-02	10/05/94	%	100	12.02	12.00	CC	BN 3716	ICS
#6	SM 5310D	10/08/94	mg/L	101	10.1	10	DOC	BN 461	ICS

Slope =

NA

Intercept =

NA

Single point calibrations for this test.

95% Correlation Coefficient =

NA

CONTINUING CALIBRATION VERIFICATION

	Lab	Source	Element/	True	Found	% R	Units		Method	Instrument
	ID#		Compound	Value	Value			Date	#	ID
	ccs	BN 3716	TC	12.00	11.91	99	%	10/08/94	Leco CR12	#7
	CCS	BN 3716	TC	12.00	11.90	99	%	10/08/94	Leco CR12	#7
	CCS	BN 3716	C C	12.00	12.05	100	%	10/05/94	COU-02	#3
	ccs	BN 3716	CC	12.00	12.02	100	%	10/05/94	COU-02	#3
•	ccs	BN 461	DOC	10	10.3	103	mg/L	10/08/94	SM 53100	#6
	CCS	BN 461	DOC	10	10.3	103	mg/L	10/08/94	SM 5310D	#6

LABORATORIES, INC.

Quality Analytical Services Since 1936

Indiana Street • Colden, CO 80403

ANALYSIS: TOTAL CARBON	METHOD: HIGH TEMP
_	COMB INFRARED DET.
INSTRUMENT: LECO CR12	ANALYZER # 7
BALANCE # 19	

STD. CALCIUM CARBONATE		STD. N.I.S.T. BUFFALO RIVE	R SEDIMENT (BRS)
12.00 %C (theory)	BN 3716	3.348 %C (theory)	BN 4384

SAMPLE #	SAMPLE WT G			CARBON PRE- CALIB	CARBON POST- CALIB	qc	% REC.
(1)Ca	KIL	1700	VID LUT	VG			
ricik	111	J		1			
eikek	ecD						,
1cs 03	1010			12.29	1204	IO	10090
(403	,1026	(cal) 	12.22	11.07	IS	100%
CC(13)	1110	Chi	ms	12.11	11.60	TO	CCYC
Ca(03)	.1030			12:39	12.13	T(S	10196
0a(03					1202	TIS	1004
TB	1 CB	at 1	rguo.	ent	2000	FB	
B			<u> </u>		0003	IB I	
MP	1/500	et	······································		co co+	mB	
1113					m	mB	
25	(30)				3.367	10	1019/9
EU 03	1090				1192	ces	99%
WALLER !	WAS DATE	INAC	REVIEWED	DATE	10/10/94	PAGE 0	F 5
	11.11/201	10137	11 , 1	/	1-11-11-1		7/27/93

LABORATORIES, INC.

Quality Analytical Services Since 1936

1 Indiana Street • Golden, CO 80403

ANALYSIS: TOTAL CARBON	METHOD: HIGH TEMP COMB INFRARED DET.
INSTRUMENT : LECO CR12	ANALYZER # 7
BALANCE # 19	

STD. CALCIUM CARBONATE			STD. N.I.S.T. BUFFALO RIV	ER SEDIMENT (BRS)	
12.00 %C (theory)	BN	3716	3.348 %C (theory)	BN 4384	

SAMPLE	SAMPLE WT G		X CARBON PRE- CALIB	CARBON POST- CALIB		QC	REC.	
		V/			1191	rcs	110%	949
CelC3 2734-01 2-31-01	,1150/ ,2510 ,5650	250		13.16 2.200 2.812	Z+/-	12.21	VH	
24 61								
2731-0	H160	> spike		5270		Ĭ.	7.7/.	
(a(03)	1070	Sopike.		5.5ZI		3.2 × 7	15 A	
(a(03) 973/62 972/12	.3590 .4890			2.126 3.359				
2734-04	.4150 .5100			281Z 00.929			,	
	1150			1190	i	((5	CF140	
					₹ 1		7	_

LABORATORIES, INC.
Quality Analytical Services Since 1936
4630 Indiana Street - Colden, CO 80403

ANALYSIS	CARBONATE	METHOD	SOP COU-02
ANALYZER #	6	COULOMETER#	3
BALANCE #	10		Carrie Contractor

LCIUM CARBONATE BOTTLE # % CTH			% C THEOR				10TTLE # 4056			
SAMPLE NO.	TARE WT. GRAMS	TARE + SAMPLE WT.	SAMPLE WT. GRAMS	NOTES	COUNTS JL GRAMS	LESS BLANK	% CARBON AS CARBONATE CARBON		RECOVERY	
Blank					8.6			IB		
31 boat					7.6			MA		
31 hout					7.1			MR		
Cacon	0.583270	0.59420E	0.0109.38		13 23.0	1315.0	12.02	765	100 % rec.	
FN13:CG	0.616050	0.629051	0.013001		1474.4	1466.4	11.28	<u> کرغ</u>	100 %,100	
	-									
								e Querre a la companya de la company		
						10				
(acc. 0	511114	1.526533C	0.015719		1858.8	185C.S	12.00		100 ½ rec	
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ABORATORIES, INC.

Quanty Analytical Services Since 1936
630 Indiana Street - Colden, CO 80403

ANALYSIS	CARBONATE	METHOD	SOP COU-02
ANALYZER #	6	COULOMETER #	3
BALANCE #	10	70220 A. L. L. L. L. L. L. L. L. L. L. L. L. L.	

530 Indiana Street • Golden, CO 80403				BALANCE #	10		Carrierates vine	Carlotten and	salassaning.		
		37/6			1		SODIUM CARBO Na2CO3	DIUM CARBONATE B		%C THEORY = 11.33 %	
SAMPLE NO.	TARE WT. GRAMS	TARE + SAMPLE WT.	SAMPLE WT. GRAMS	NOTES	COUNTS IL GRAMS	BLANK BLANK	% CARBON AS CARBONATE CARBON		RECOVERY		
*Ca(Da	0.621539	0.632764	0.011225		1356.3	1350.3	12.03	<u> </u>	100 %		
uen+	to	lunch									
FCACO	0.577910	©.5594CG	0.011528		1 396.7	1386.7	12.05	ccs	100 % rec		
									خ در د د		
-74-CI	0.528650	0.578804	0.070154		1199.7	1191.7	1.684	dup			
734-01	0.546484	0.618212	0.071728		1641.2	1633.2	2.276	/	dup- 1% of mesn		
734-01 k	1.575824	6.605659	0,029835	Soike			109% 50				
	0.564905	0.575824	0.010919		see sp	vKe seu	very sheet	70110			
Pike	0.598023	0.630676	0.032653	Sspike	1919.1	1911.1	109% 50	spike	%,18c		
*CoCOn		D.538023	}				ry sheet	dup	C: 0. 1/		
1	1	n.565388	1		1451.9	1/972	2 051	ccs	98 %rec		
		0.627518 0.642622	į		1615 2						
Į.	1	0.664902	İ		1016.6	1009.6	3,009				
1	1	0.722906	ļ		481.9	473.9	0.753				
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ABORATORIES, INC.
|uality Anaryocal Services Since 1936
630 Indiana Street • Golden, CO 80403

ANALYSIS	CARBONATE	METHOD	SOP COU-02
ANALYZER #	6	COULOMETER	3
BALANCE #	10	The moral designation	The state of the s

FLCION CA		37/6	% C THEOR	RY = 12.00%	SODIUM CARBO	NATE	80TTLE # 4056	%C THEOR	Y = 11.33 %
SAMPLE NO.	TARE WT. GRAMS	TARE + SAMPLE WT.	SAMPLE WT. GRAMS	NOTES	COUNTS IL GRAMS	LESS BLANK			RECOVER
	and the second of the second o	· · · · · · · · · · · · · · · · · · ·						6	
						[1	
² CaC0 x	0.673214	0.684213	0-010999		13303	1322.	3 12.02	CCS	100 %
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LABORATORIES, INC.

Quanty Analytical Services Soilve 1916 An 30 Ingland Street - Cuiden, CO 80401

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METHOD AMPOULE	DETECTION LIMIT SOLIG CIL
	COULOMETER #

Sample #	Sample Vol. (ml)	µg С reading	µg C Blank	TOC mg C/L	Notes	ac	% Rec
50		2.9	3.0				
	1 11	154.2		10.12	in a c	I.cs	131
	10	61.0		2.32		1 1	116.3
					the state of the s		
			# V-4				
							7
	-		t inner at				
							-
-, 11	115.9	1059		10,29		cis	103
X +1000 (1	10						
-11.71	70	20 (W) (V					
34-06	10	88,9		8.59			
734-07	10	28.1		2.51			
34-07	15	22.3		2.43			
134-06		920		8.70			
	i	104.1			Tout a wait +	Sent series	937
34-16		· · · · · · · ·		1991 1	1	L. 12 1	
34-06 34-06	į	108.0	- 1	10,50	1 ml 35 m/ 1 ml	hacarety	109%

ANALYST Christian Christia

NOTE: $mg C/L = [\mu g C (sample)] - [\mu g C (blank)] + [sample volume (ml)]$

μg C/L = (mg C/L) * 1000

100 1ig/2 5Td XHP BN99 del 8-9-94

and the standard of the standards of



November 16, 1994

MS GAIL SAXTON ENGINEERING SCIENCE INC 1700 BORADWAY SUITE 900 DENVER CO 80290

> Data Report: 94-4373 Client Project : Madison ANG

Dear Ms. Saxton:

Enclosed are the analytical results for the samples shown in the Sample Log Sheet. The enclosed data have been reviewed for quality assurance. If you have any questions concerning the reported information, please contact Mark Mensik, Project Manager, or me.

Please Note: Samples marked for return on the Sample Log Sheet are considered hazardous, unsuitable for municipal disposal or were placed on hold at your request. Samples considered hazardous or unsuitable for municipal disposal will be returned to you immediately. Samples placed on hold will be returned and samples not considered hazardous will be disposed of one (1) month from the date of this letter.

The invoice for this work will be mailed to your Accounts Payable department shortly.

Thank you for using the services of Evergreen Analytical.

Sincerely,

ck Barney

#resident



CASE NARRATIVE

Evergreen Analytical Projects: 94-4373

Engineering Science, Inc. (ES) Project: Madison ANG

Subcontract Number: 722450.SC02

Sample Receipt

On November 9, 1994 five soil and five groundwater samples were received at Evergreen Analytical Laboratory (EAL) for analysis under the subcontract referenced above. Refer to the EAL Check-in Record for specific information regarding the condition of samples upon receipt at EAL. Refer to the EAL Sample Log Sheet for specific log-in information and cross-reference of EAL and ES sample identifications.

The sampling firm did not sign the chains-of-custody relinquishing the samples to Federal Express.

Missed Holding Times

These samples were originally sampled on September 16, 1994 and received at EAL on September 17, 1994 but were not analyzed within contract required holding times for BTEX/TMB, total volatile hydrocarbons and total extractable hydrocarbons. These samples were subsequently resampled and have been analyzed for the aforementioned analytes under an agreement between EAL and ES dated October 31, 1994. This data package contains the analytical results for these samples.

Sample CPT21-5.5 was identified as CPT21-6 on the original group of samples received September 17, 1994. Sample CPT10-5.5 from the original group of samples received September 17, 1994, was not resampled.

BTEX and Trimethylbenzenes (TMB)

TMBs were not requested on the chain-of-custody for the soil samples, however, they were included on the hard copy data reports. Gail Saxton of Engineering Science was informed of this and stated that this would not create a problem and requested that the TMBs remain on the hard copy reports. The TMB results are not included on the disk deliverables.

Sample CPT-19S was spiked. The percent recoveries for the matrix spike sample were all acceptable except for 1,2,4-trimethylbenzene. All percent recoveries for the matrix spike duplicate (MSD) were unacceptable, as were all RPD results. The poor MSD results are most likely due to a bad purge. The surrogate recovery for the MSD was 47%, which is lower than the low control limit. The MS and MSD are being reanalyzed. The results will be forwarded as soon as available. None of the data have been qualified based on the MS/MSD results.

The trip blank that accompanied the cooler containing the soil samples exhibited a loss surregate 10 co vory. The sample is seing 10. analytel. The coult will be forwarded as soon as a voilable.

Evergreen Analytical, Inc. 4036 Youngfield St. Wheat Ridge, CO 80033-3862 (303) 425-6021 FAX (303) 425-6854

Page 2
Case Narrative
Madison ANG (EAL# 94-4373)

Total Extractable Hydrocarbons (TEH)

There was no MSD sample analyzed for the water matrix samples due to insufficient sample volume. The MS result was acceptable.

Total Volatile Hydrocarbons (TVH)

There were no quality control anomalies to report.

Disk Deliverables

The disk deliverables are also included with the hard copy data package.

The results from this data package have been added to the disk deliverable from the first Madison ANG data package.

The total xylenes results on the hard copy and the disk deliverable are reported using two significant figures. The disk deliverable also includes results for m/p-xylene and o-xylene that are not reported on the hard copy. These results are reported using three significant figures in some instances.

A hardcopy of each spreadsheet included on the diskette are included. The name for each file is located in the top left corner on the first page of each spreadsheet printout.

The electronic deliverables are reported on Microsoft Excel version 5.0.

Mark J. Mensik, Project Manager

Aqueous Analytes/Methods	lytes/Meth	ods - Waters	ters 3											
Method							SW8020	020						
alcome 3	90000	90000	Tollione	Toleron	Ethyl	Ethyl	MAR.D. vylana	M&P.vvlene	o de los	O.vvlene	Total	Total	Total	Total
2	(/\outle	flag	(na/L)	flag	(µa/L)	flag	(ng/L)	flag	(ng/L)	flag	(n8/r)	flag	7/83	flag
	i i		,	,		,		>		X				
MW-16	5.1		4.0	v	4.0	v	2.2		4.0	V	2.2		7.3	
MW-13	4.0	>	0.4	>	0.4	v	0.4	٧	4.0	٧	0.4	٧	0.4	V
MW-12	4.0	٧	0.4	>	4.0	٧	0.4	v	4.0	V	4.0	٧	0.4	v
MW.11	4.0	~	0.4	٧	4.0	v	0.4	v	0.4	>	4.0	٧	0.4	~
MW-25	0.4	~	4.0	v	4.0	v	0.4	V	0.4	v	4.0	٧	0.4	v
MW-UNK	4.0	v	0.4	v	4.0	٧	4.0	v	0.4	v	4.0	V	0.4	~
TRIP-BLANK	4.0	v	0.4	v	0.4	v	0.4	v	6.4	v	4.0	v	0.4	~
MW-17	4.0	٧	4.0	v	0.4	v	0.4	V	0.4	٧	0.4	>	0.4	v
MW-10	110		4.8		78		373		2.9		380		57C	
MW-8	4700	щ	15		220		1660		20		1700		0099	
MW-9	86		1.2		0.7		6.0		1.7		2.6		100	
MW-26	68		1.0		9.0		1.7		1.3		3.0		94	
MW-22S	0.4	v	4.0		4.0	v	0.4	v	4.0	V	4.0	>	0.4	
TRIP BLANK	4.0	~	4.0	v	4.0	v	0.4	٧	4.0	>	4.0	>	0.4	~
HP-CPT-3	4.0	v	4.0	V	4.0	٧	9.0	V	9.0	v	4.0	>	0.4	~
HP-CPT-11	13		5.4	8	420		1670		49		1700		2100	
CPT-17S	26000		30	8	780		1130		420		1500		28000	
CPT-17D	3800		5.0	89	360		1000		0		1000		5200	
CPT-18S	83		4.0	8	3.3		9.8		1.2		11		98	
CPT-15S	14		0.4	٧	1.1		3.0		0.5		3.5		13	
CPT-4D	5.2		0.7	60	0.9		1.8		4.0		2.2		0.6	
FIELD BLANK	4.0	٧	4.0	v	4.0	v	4.0	v	0.4	v	4.0	v	4.0	~
TRIP BLANK	0.4	V	4.0	V	4.0	v	0.4	V	4.0	V	4.0	V	4.0	\
CPT-1D	0.4	٧	0.7	В	0.4	V	0.7	89	4.0	V	0.7	8	1.4	
CPT-5S	4.0	٧	0.8	æ	4.0	v	0.5	æ	4.0	V	0.5	8	1.3	
CPT-50	6.0		2.6	æ	0.4	v	1.2	æ	4.0	V	1.2	æ	4.7	
CPT-19S	4.0	٧	9.0	80	0.7	œ	2.5	æ	8.	89	6.4	æ	5.6	
CPT-20	4.0	V	0.5	20	4.0	\	1.0	8	0.5	80	1.5	80	2.0	
TRIP BLANK	4.0	v	4.0	n	4.0	V	0.5	30	0.4	V	6.5	20	6.0	
TRIP BLANK 2	4.0	\	0.4	V	0.4	\ \	4.0	V	4.0	v	4.0	~	4.0	V
		T												

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		SW8020 cont	cont.			SW8015 modified	odified		Field	Field tests	-		£300	ጻ	
+			:	_		,									
+						lotal									
-		1,2.4-		1,2,3-		Hydro-				Dissolved	Redox	Nitrogen	Nitrogen		
_	1,3,5-	Trunethyl-	1,2,4	Trimethyl-	1,2,3-	carbons	TVH.	H	Conductivity	Oxygen	Potential	Nitrate +	Nitrete +	Suifate	Sulfate
	TMB	benzene	TMB	benzene	TMB	(TVH/TEH)	EH.	(units)	(umhos/cm)	(mg/L)	(millivolts)	Nitrite	Nitrite	(anion)	(anion)
(mg/L)	flag	(mg/L)	flag	(wg/L)	flag	(mg/L)	flag	(field)	(field)	(field)	(field)	(mg/L)	flag	(mg/L)	fleg
	ľ	-				7.05	11,					0.055	,	1 54	
4.0	v	4.7		5		0.1/0.3	7					2.43	,		
0.4	v	0	v	4.0	V	0.1/0.5	V/V					5.43			
4.0	\ \	4.0	v	0.4	V	0.1/0.5	V/V					4.54		17.7	
4.0	~	0.4	v	0.4	~	0.1/0.5	×/×					1.81		33.1	
9.4	~	4.0	V	0.4	٧	0.1/0.5	>/>					1.88		32.2	
4.0	v	4.0	V	0.4	>	0.1/0.5	>/>					0.449		15.3	
4.0	v	0.4	V	0.4	v										
4.0	\ \ \	4.0	v	4.0	~	0.1/0.5	>/>					0.262		15.2	
67		190		8		4.0/1.4						0.056	V	1.56	
240		540		400		19/6.2						0.056	v	1.26	
6.4		14		1.8		0.6/0.5						1.39		20.0	
6.7		15		1.7		0.1/0.5	⊽								
9.0		9.0		9.0		0.5/0.5	>/					0.709		38.5	
0.4	~	0.4	~	0.4	~										
4.0	~	4.0	~	0.4	~	0.1/0.5	>/>					447		29.0	
270		720		340		14/3.7						0.146		2.85	
84		350		230		25/									
140		570		360		13/3.3						0.062		4.73	
1.6		4.6		1.7		/9:0						1.88		113	
9.0		1.4		9.0		0.4/0.5	>/					0.100		24.7	
4.0		1.6		9.0		0.1/0.5	>/>					0.370		7.94	
4.0	v	0.4	v	0.4	~										
4.0	v	0.4	<u> </u>	0.5											
0.4	\ \	0.4	v	0.4	~	0.2/0.5	>					0.790		45.2	
0.4	v	4.0	~	0.4	V	0.3/0.5	>					0.136		5.01	
4.0	v	9.0		0.4	v	0.3/0.5	>/				_	0.100		6.83	
3.3		7.7		2.1		0.2/0.5	>/					0.101		25.3	
0.7		2.4		0.5		0.1/0.5	>/>					10.7		17.0	
4.0	v	0.4	v	0.4	v										
4.0	٧	0.4	v	0.4	٧										
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33	Total	Alkalinity	flag				-																														
A403	Total	Alkalinity	(mg/L)	454	223	27.6	200	787	294	347		707	/87	202	7	313	369	358	251		459	415		473		424	450	378			-						
100	Dissolved	Carbon	flag																																		
A5310C	Dissolved	Carbon	(mg/L)	38	2.1	1.1				5.5			ñ.		-		2.5							9.8													
RSKSOP-175		Methane	flag		\	/\	/\	v .	~	v	,	\					v			٧				v				V									
RSKSC		Methane	(mg/L)	0.21	1000	500		00.0	0.00	0.001	.00	20.0	11 74	1000	200.0	0.004	0.001	3.84	5.2	0.001	0.01	0.76		0.001	0.17	0.13	0.02	0.001									
5.4	Total	Phosphate	flag																																		
E365.4	Total	Phosphate	(mg/L)																																		
sw7460	Total	Manganese	flag																																		-
SW6010/SW7460	Total	Manganese	(µg/L)											1																				!			-
ntinued) Sw6010	Total	Iron	flag												+																						_
Sw7380 or Sw6010	jetol	lron	(mg/L)					+							+	+															†						_
Analytes/N	Chloride	(anion)	flag																																		-
Aqueous Analytes/Methods (continued) E300 cont. SW7380 or SW6010	90.0	(anion)	(mg/L)	34.8	3 43	3.5	0.7	3.97	3.42	5.13		3.19	4.95	20.0	0.07	33.6	3.63	6.22	7.76	1.95	11.7	4.99		15.3	16.9	16.3	33.1	1.85					+				_

Soil/Sediment Analytes/Methods	tes/Metho	ds - Soils 3	3										
Method:							SW	SW8020					
					Ethyl	Ethyi					Total	Total	Total
Sample	Benzene	Benzene	Toluene	Toluene	Benzene	Benzene	M&P-xylene	M&P-xylene	0-xylene	O-xylene	Xylenes	Xylenes	втех
QI	(ug/kg)	flag	(wg/kg)	flag	(ng/kg)	flag	(µg/kg)	flag	(ng/kg)	flag	(m8/k8)	(leg	(mg/kg)
WANG-CPT17-5	140		9.4	7	130		250		33		280		840
WANG-CPT18-4.5	5.3	V	0.7	7	5.3	V	0.5	7	5.3	v	0.5	7	1.2
WANG-CPT8-7.5	760		4500	8	19000		86000		2600		89000		110000
WANG-CPT2-7	4.7	>	0.7	7	4.7	V	9.0	7	4.0	7	1.0	,	1.7
WANG-CPT11-6.5	2300		23000		1700		0096		12000		22000		49000
WANG-CPT3-5	4.1	>	9.0	8.1	0.4	ſ	1.8	B	6.0	ſ	2.6	28	3.9
WANG-CPT20-6.8	4.3	v	1.5	ſ	4.0	r	1.7	٦	0.5	7	2.2	,	5.1
WANG-CPT10-5.5													
WANG-CPT7-7.8	4.7	>	4.7	v	4.7	٧	4.7	V	4.7	٧	4.7	V	4.7
WANG-CPT21-5.5	4.5	٧	4.5	V	4.5	v	4.5	v	4.5	٧	4.5	v	4.5
WANG-CPT9-5.5	4.5	٧	4.5	V	4.5	V	4.5	v	4.5	V	4.5	v	4.5
						1							
						1							
												+	
												+	

iii iii	W8015M	SW5030/9	WATER A		A5310C	31	310.1				T
		1	WOULDING							-	
		Total									
-++		Volatile		Total	Total						
\dashv		Hydro-		Organic	Organic	Total	Total				T
	ТРН	carbons	TVH	Carbon	Carbon	Alkalinity	Alkalinity				
riag (mg/kg)	flag	(µg/kg)	flag	(%)	flag	(mgCaCO3/L)	flag				
		17000									
		130	>	0.24							
		3000000									T
		400		0.61							
5300		4600000									T
10		100	\ \	0.09							T
-	~	110	v								
< 12	v	120	v								T
11	V	110	~								
-	v	110	~	90.0	V						T
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Evergreen Analytical Sample Log Sheet	Project # <u>94-4373</u>
Date(s) Sampled: 11/07/94 COC	Date Due: 11/14/94
'e Received: 11/09/94 1030	Holding Time(s): 11/14/94
lient Project I.D. Madison ANG	Rush STANDARD
Client: Engineering Science, Inc.	Shipping Charges N/A
Address: 1700 Broadway Suite 900	E.A. Cooler # 104,361
Denver, CO 80290	Airbill # FEDEX-0243763542/553
Contact: Gail Saxton	
Client P.O. 722450.01000	Cooler Bottles Y COC Present Y Sample Tags Present? Y
Phone #831-8100 Fax #831-8208	
Special Invoicing/Billing	Sample(s) Sealed? Y
Special Instructions *MS/MSD INCLUDED To the Client	
ID # ID# Analys	sis Mtx Btl Loc
<u> </u>	<u>rmb</u> w 40V 2
(97929A/B CPT-5S BTEX/	IMB W 40V 2
<u> 930A/B CPT-5D BTEX/</u>	IMB W 40V 2
(97931A-D CPT-19S *BTEX/	TMB W 40V 2
(97932A/B CPT-20 BTEX/	IMB W 40V 2
<u> (97933A/B CPT-20 Duplicate BTEX/</u>	IMB W 40V 2
K97934A TRIP BLANK BTEX/	<u>rmb</u> <u>W 40V 2</u>
<u> </u>	H W 40V 2
<u> </u>	H W 40V 2
K97930C,D CPT-5D TVI	H W 40V 2
K97931E-H CPT-19S * TV	H W 40V 2
X97932C/D CPT-20 TVE	H W 40V 2
X97933C/D CPT-20 Duplicate TV	H W 40V 2
X97928E CPT-1D TEN	H W 1LA B3
K97929E CPT-5S TER	H W 1LA B3
X97930E CPT-5D TEN	H W 1LA B3
X97931I/J CPT-19S	H W 1LA B3
K97932E CPT-20 TE	H W 1LA B3
K97933E CPT-20 Duplicate TENTS Tample to be returned	H W 1LA B3
Route GC/MS GC 4 Metals	Wet Chem SxPrep <u>1</u> Acctg <u>1</u>
MJM C SxRec C QA/QC	C Sales C File Orig
Page 1 of 2 Page(s)	Custodian/Date: 450 1109

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Lab ID #	Client				_
7	ID#	Analysis	Mtx	Btl	Loc
935A-D	CPT-3-5	*BTEX/TMB	S	2WM	2
K97936A/B	CPT 20-6.8	BTEX/TMB	S	2WM	2
(97937A/B	CPT 7-7.8	BTEX/TMB	S	2WM	2
(97938A/B	CPT 9-5.5	BTEX/TMB	S	2WM	2
(97939A/B	CPT 21-5.5	BTEX/TMB	S	2WM	2
(97940A	TI IP BLANK	BTEX/TMB	s	2WM	2
(97935E/F	CPT-3-5	* TVH	S	2WM	2
(97936C	CPT 20-6.8	TVH	s	2WM	2
97937C	CPT 7-7.8	TVH	s	2WM	2
97938C	CPT 9-5.5	TVH	S	2WM	2
97939C	CPT 21-5.5	TVH	S	2WM	2
97935G/H	CPT-3-5	* TEH	s	2WM	В3
(97936D	CPT 20-6.8	TEH	S	2WM	В3
97937D	CPT 7-7.8	ТЕН	S	2WM	В3
97938D	CPT 9-5.5	TEH	s	2WM	В3
97939D	CPT 21-5.5	TEH	S	2WM	В3

Page 2 of 2 Pages Project # 94-4373

R=Sample to be returned

Date/Time EAL use only
Do not write
in shaded area CLIENT CONTACT (print) Matt Suidmiscon EAL Sample No. Container Size 30 obes Project #__ Custodian, expedited turnaround subject to additional fee Location B PO : 722450 OKXC Date/Time | Received by. (Signature) PROJECTION Madison TURNAROUND REQUIRED. John Services CKW/SX ANĄ! ÝSIS REQUESTED Total Metals-DW / NPDES / SW846 Circle & list metals below) Circle & list metals below) 111994 LEBH 8012mod: (Diezel) Date/Time Relinquished by: (Signature) Wheat Ridge, Colorado 80033 z (Gasoline) Evergreen. .nalytical Inc. Jn (303) 425-6021 FAX (303) 425-6854 (800) 845-7400 4036 Youngfield St. (circle)/MTBE (circle) FAX RESULTS Herbicides 8150/515 (circle) KERRY PesUPCBs 8080/608/508 (circle) Pesticides 8080/608 (circle) BNA 8270/625 (CIrcle) FAX# 505 5-851- 0208 8260/624/524.2 (circle) VOA/BNA/Pest/Herb/Metals Date/Time Received by: (Signative) MATRIX e6pniS / IiO DiloS / lioS Water-Drinking/Discharge/Ground J.C. 21P J.C. 27.C. COMPANY ER WERE OF STANTER ADDRESS. YOUR STORES No. of Containers 4 1630 TIME 11-7-94 1536 1615 111-7-94 14:10 Evergreen Analytical Cooler No. 70+ 501 SAMPLED 46-6-11 45-L-11 45-6 -7-54 DATE PHONE# 303-831-3100 Please **PRIN** all information: CITY DRY VEY STATE (print) Stove Cathered 20-68 Relinquished by (Signature) CPT3-MS/MSD IDENTIFICATION 8-4-4 ٨ (signature) SAMPLE Sampler Name: CLIENT 1 2 Cooler Received \widetilde{c}_{ℓ} CPT+3 Instructions: 1-0 011 CPT 1-0 ä Ξ

くころこ くくり・しじく しこしくしょ プログド しこくてい してい こしばらしり

Date/Time EAL use only Do not write in shaded area EAL Sample No. CLIENT CONTACT (print). Matt Samson Container Size Custodian 30 OB Project # expedited turnaround subject to additional fee PROJECT ID MODISON ANG Location 죞 Date/Time | Received by: (Signature) 72245D.01000 TURNAROUND REQUIRED* P.O. # ANALÝSÌS/ REQUESTED Total Metals-DW / NPDES / SW846 Circle & list metals below) (circle & list metals below) 4036 Youngheld St Wheat Ridge, Colorado 80033 (303) 425-6021 FAX (303) 425-6854 (800) 845-7400 1EPH 8015mod (Diesel) Date/Time Regayed by (Signalure)
| Date/Time Relinquished by (Signature) TVPH 8015mod. (Gasoline) 78PH 418 1/Oil & Grease 413.1 (Circle) BTEX 8020/602 (CITCLE)/MTBE (CITCLE) FAX RESULTS/ РСВ S^{Сгевл} Herbicides 8150/515 (circle) Pest/PCBs 8080/608/508 (circle) Pesticides 8080/608 (circle) BNA 8270/625 (circle) FAX # 303 -831-8208 VOA 8260/624/524 2 (CIrcle) VOA/BNA/Pest/Hetb/Metals MATRIX egbul& \ liO PIJOS / HOS Jp 82290 OM of Containers COMPANY EIGINEENING Science Secon W54:0 1 Bm 5. 50 200 C PM 11/7/94 72/52 TIME 38:1 44/6 1400 Brighdury SAMPLED #104 11/4/1 17/44 4/61 7/94 DATE STATE CC Please **PRIN** draver PHONE # 305 - 88/-8/00 all information: Evergreen Analytical Cooler No._ 121 -20 Duplies Heunquished by (Signature) IDENTIFICATION S S 26/ 12M 291-192 CITY TENVEY SAMPLE Sampler Name (print)__Rand Cooler Received Instructions ADDRESS CDT-ートもじ 10 C (signature)_ 140 Ö Ξ

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Evergreen Analytical Inc.

	Client:	(Airbill	if applicable
	Client Project ID(s): Madi Son AN	G	-
	EAL Project #(s):94-4373 EAL	Cooler(s)): (Y) ,
	Cooler# 104 36	· · · · · · · · · · · · · · · · · · ·	
:	Ce packs (Y) N (Y) N Y N	Y N	Y N
1	emperature to 60 5.4		
	1. Q 1) (Y	א א
1	. Custody seal(s) present: Seals on cooler intact Seals on bottle intact		
2	Chain of Custody present:		
3.	Containers broken or leaking: (Comment on COC if Y)		
4.	Containers labeled:		
5.	COC agrees w/ bottles received: (Comment on COC if N)		
5.	COC agrees w/ labels: (Comment on COC if N)		
•	Headspace in VOA vials-waters only (comment on COC if Y)		<u></u>
	VOA samples preserved:	1	·
•	pH measured on metals, cyanide or phenolics*:_ List discrepancies_ *Non-EAL provided containers only, water samp	les only.	
ο.	Metal samples present:		
	Total, Dissolved		
	D or PD to be filtered:		
	T,TR,D,PD to be Preserved:		
•	Short holding times: Specify parameters		:
2.	Multi-phase sample(s) present:		:
2	COC signed w/ date/time:		
.			



BTEX Data Report

Client Sample Number	: CPT-1D	Client Project No.	: Madison ANG
Lab Sample Number	: X97928	Lab Project No.	: 94-4373
Date Sampled	: 11/7/94	Dilution Factor	: 1.00
Date Received	: 11/9/94	Method	: 602
Date Extracted/Prepared	: 11/10/94	Matrix	: Water
Date Analyzed	: 11/10/94	Lab File No.	: BX1111009
		Method Blank No.	: MB111094

		Sam	ple	
Compound Name	Cas Number	Concen	tration	MDL
		ug	/L	ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3	0.7	В	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylene (m/p + o)	1330-20-7	0.7	В	0.4
1,3,5-trimethylbenzene	108-67-8		U	0.4
1,2,4-trimethylbenzene	95-63-6		U	0.4
1,2,3-trimethylbenzene	526 73-8		U	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 99% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

Approved

BTEX Data Report

Client Sample Number	: CPT-5S	Client Project No.	: Madison ANG
Lab Sample Number	: X97929	Lab Project No.	: 94-4373
Date Sampled	: 11/7/94	Dilution Factor	: 1.00
Date Received	: 11/9/94	Method	: 602
Date Extracted/Prepared	: 11/10/94	Matrix	: Water
Date Analyzed	: 11/10/94	Lab File No.	: BX1111010
		Method Blank No.	: MB111094

		Samı	oie	
Compound Name	Cas Number	Concentration		MDL
		ug	'L	_ ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3	0.8	В	0.4
Ethyl Benzene	100-41-4		υ	0.4
Total Xylene (m/p + o)	1330-20-7	0.5	В	0.4
1,3,5-trimethylbenzene	108-67-8		U	0.4
1,2,4-trimethylbenzene	95-63-6		U	0.4
1,2,3-trimethylbenzene	526-73-8		U	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 102% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

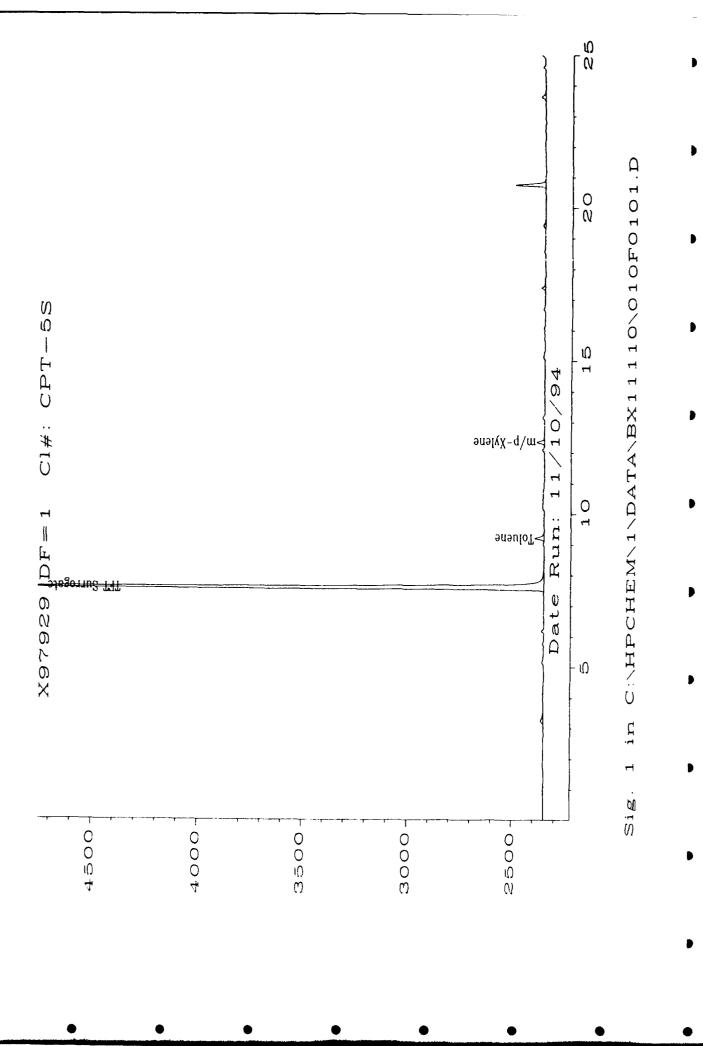
B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

Approved

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BTEX Data Report

Client Sample Number	: CPT-5D	Client Project No.	: Madison ANG
Lab Sample Number	: X97930	Lab Project No.	: 94-4373
Date Sampled	: 11/7/94	Dilution Factor	: 1.00
Date Received	: 11/9/94	Method	: 602
Date Extracted/Prepared	: 11/10/94	Matrix	: Water
Date Analyzed	: 11/10/94	Lab File No.	: BX1111013
·		Method Blank No.	: MB111094

		Sample	
Compound Name	Cas Number	Concentration	MDL
		ug/L	ug/L
Benzene	71-43-2	0.9	0.4
Toluene	108-88-3	2.6 B	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylene (m/p + o)	1330-20-7	1.2 B	0.4
1,3,5-trimethylbenzene	108-67-8	U	0.4
1,2,4-trimethylbenzene	95-63-6	0.6	0.4
1,2,3-trimethylbenzene	526-73-8	U	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 106% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

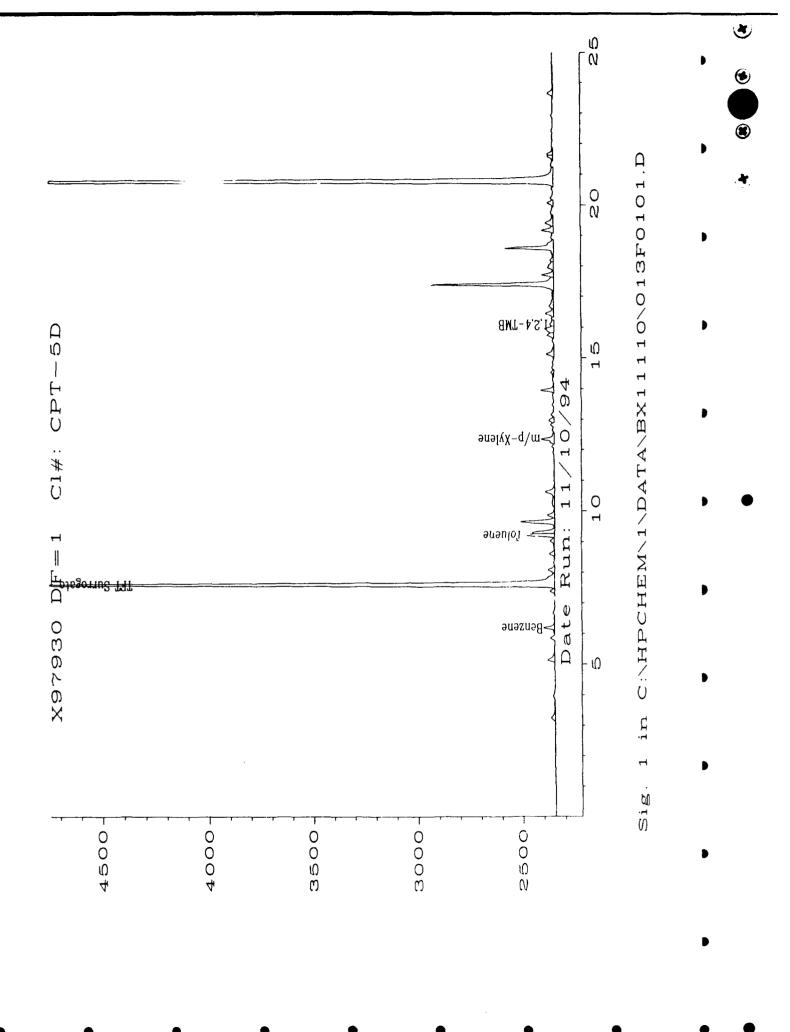
B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

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Analyst



BTEX Data Report

Client Sample Number	: CPT-19S	Client Project No.	: Madison ANG
Lab Sample Number	: X97931	Lab Project No.	: 94-4373
Date Sampled	: 11/7/94	Dilution Factor	: 1.00
Date Received	: 11/9/94	Method	: 602
Date Extracted/Prepared	: 11/10/94	Matrix	: Water
Date Analyzed	: 11/10/94	Lab File No.	: BX1111014
		Method Blank No.	: MB111094

	Sample			
Compound Name	Cas Number	Concentration	MDL	
		ug/L	ug/L	
Benzene	71-43-2	U	0.4	
Toluene	108-88-3	0.6 B	0.4	
Ethyl Benzene	100-41-4	0.7 B	0.4	
Total Xylene (m/p + o)	1330-20-7	4.3 B	0.4	
1,3,5-trimethylbenzene	108-67-8	3.3	0.4	
1,2,4-trimethylbenzene	95-63-6	7.7	0.4	
1,2,3-trimethylbenzene	526-73-8	2.1	0.4	

Note: Total Xylene consist of three isomers, two of which co-elute. The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene 94% : 77%-116% QC Reporting Limits

QUALIFIERS:

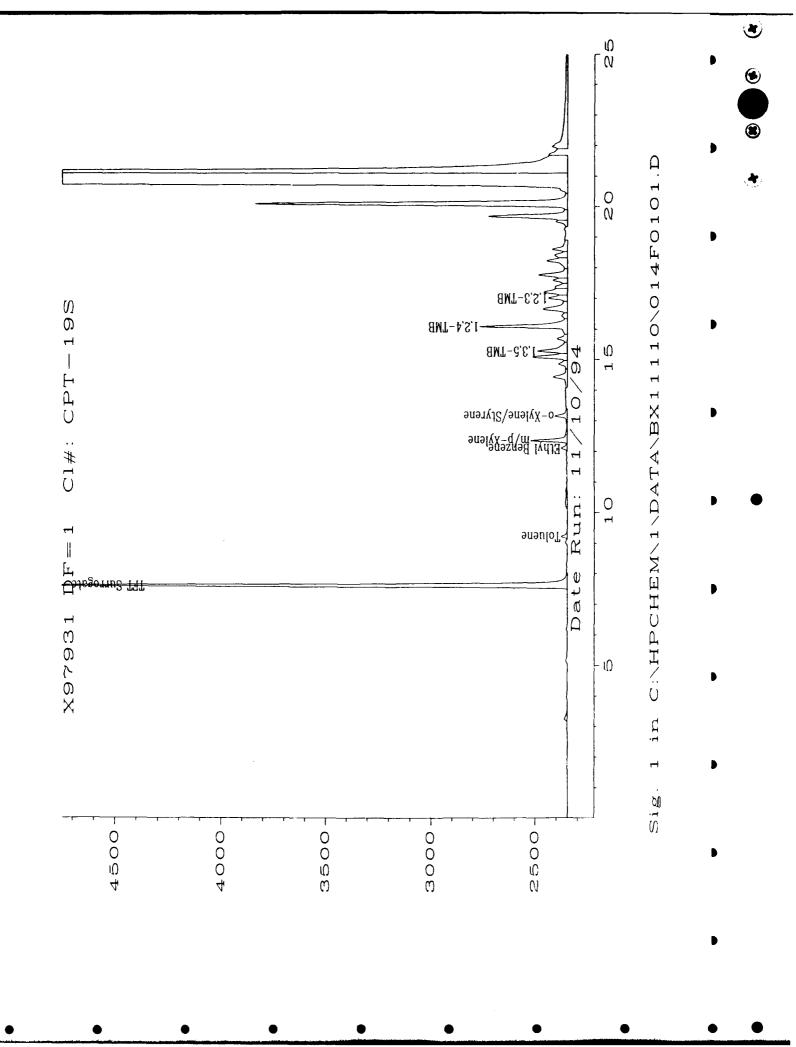
E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.





BTEX Data Report

Client Project No. : Madison ANG Client Sample Number : CPT-20 Lab Sample Number : X97932 Lab Project No. : 94-4373 : 1.00 **Dilution Factor Date Sampled** : 11/7/94 **Date Received** : 11/9/94 Method : 602 Date Extracted/Prepared : 11/10/94 Matrix : Water **Date Analyzed** : 11/10/94 Lab File No. : BX1111015 Method Blank No. : MB111094

	Sample			
Compound Name	Cas Number	Concentration		MDL
		ug/l	•	ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3	0.5	В	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylene (m/p + o)	1330-20-7	1.5	В	0.4
1,3,5-trimethylbenzene	108-67-8	0.7		0.4
1,3,5-tillletriyiberizerle	100-07-0	0.7		0.4
1,2,4-trimethyibenzene	95-63-6	2.4		0.4
1,2,3-trimethylbenzene	526-73-8	0.5		0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 99% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

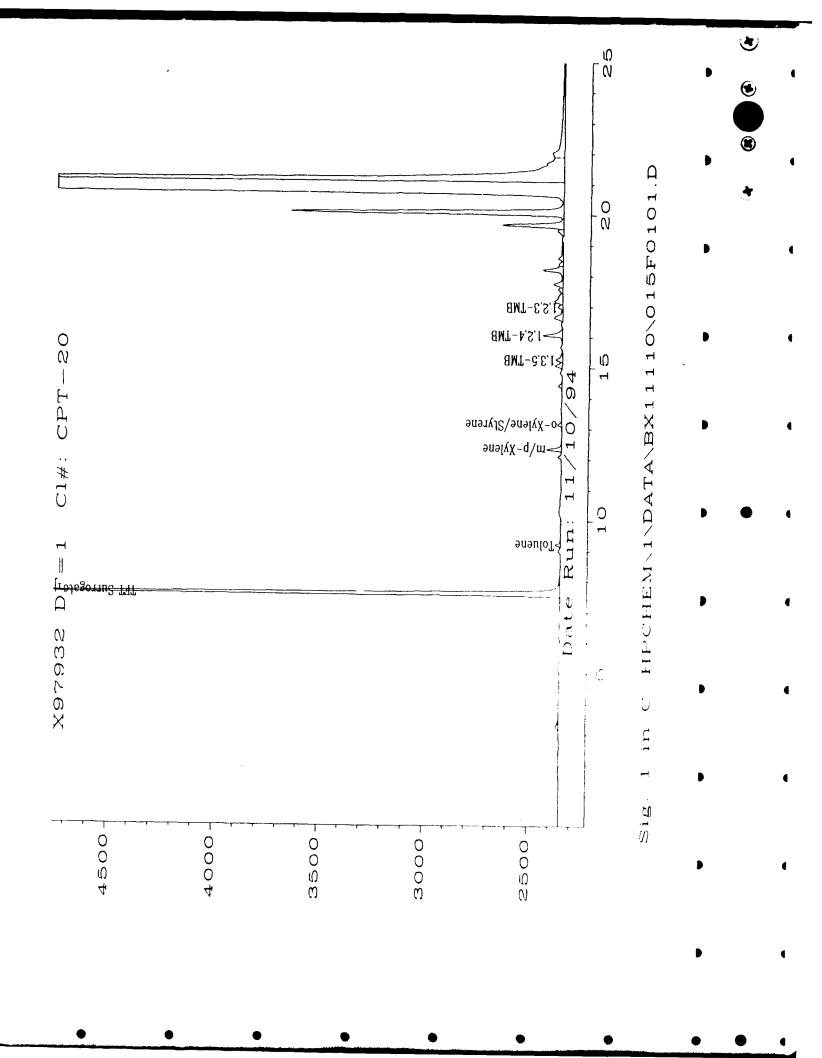
B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

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Client Sample Number	: CPT-20 Duplicate	Client Project No.	: Madison ANG
Lab Sample Number	: X97933	Lab Project No.	: 94-4373
Date Sampled	: 11/7/94	Dilution Factor	: 1.00
Date Received	: 11/9/94	Method	: 602
Date Extracted/Prepared	: 11/10/94	Matrix	: Water
Date Analyzed	: 11/10/94	Lab File No.	: BX1111017
		Method Blank No.	: MB111094

Compound Name	Cas Number	Sample Concentration ug/L		MDL ug/L
Benzene	71-43-2	į.	J	0.4
Toluene	108-88-3	0.5 E	3	0.4
Ethyl Benzene	100-41-4	l	J	0.4
Total Xylene (m/p + o)	1330-20-7	0.4 E	3	0.4
1,3,5-trimethylbenzene	108-67-8	ι	J	0.4
1,2,4-trimethylbenzene	95-63-6	l	J	0.4
1,2,3-trimethylbenzene	526-73-8	(J	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 78% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

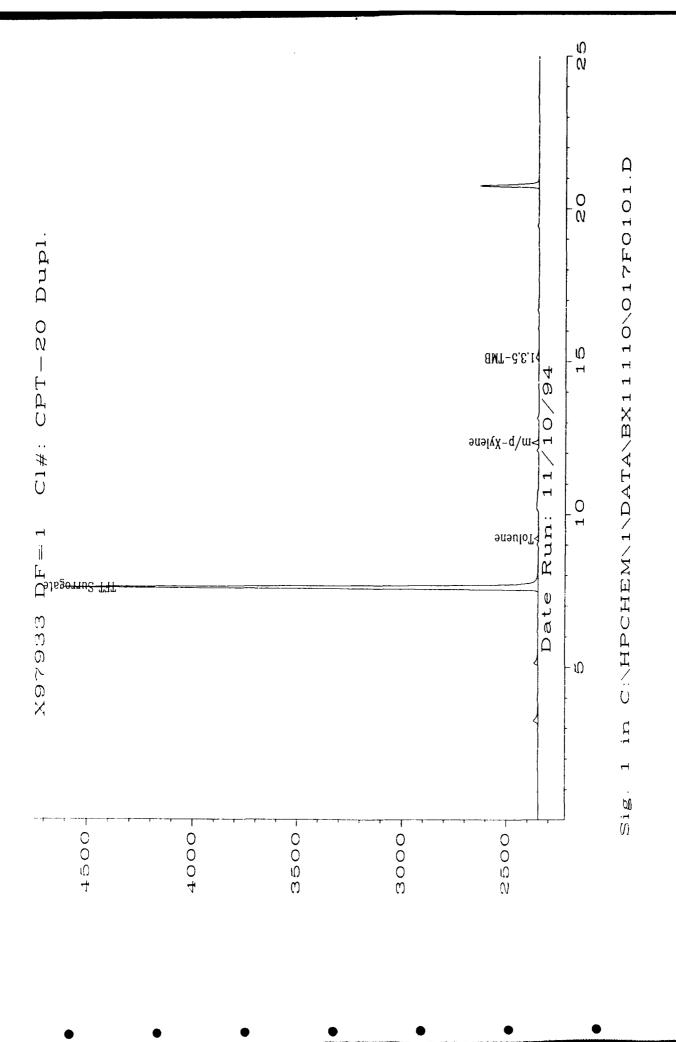
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

Approved//



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BTEX Data Report

Client Sample Number	: Trip Blank	Client Project No.	: Madison ANG
Lab Sample Number	: X97934	Lab Project No.	: 94-4373
Date Sampled	: 11/7/94	Dilution Factor	: 1.00
Date Received	: 11/9/94	Method	: 602
Date Extracted/Prepared	: 11/10/94	Matrix	: Water
Date Analyzed	: 11/10/94	Lab File No.	: BX1111018
		Method Blank No.	: MB111094

Compound Name	Cas Number	MDL		
		Concentra ug/L		ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3	0.4	В	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylene (m/p + o)	1330-20-7	0.5	В	0.4
1,3,5-trimethylbenzene	108-67-8	ı	U	0.4
1,2,4-trimethylbenzene	95-63-6	ı	U	0.4
1,2,3-trimethylbenzene	526-73-8	•	U	0.4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene MDL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 84% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

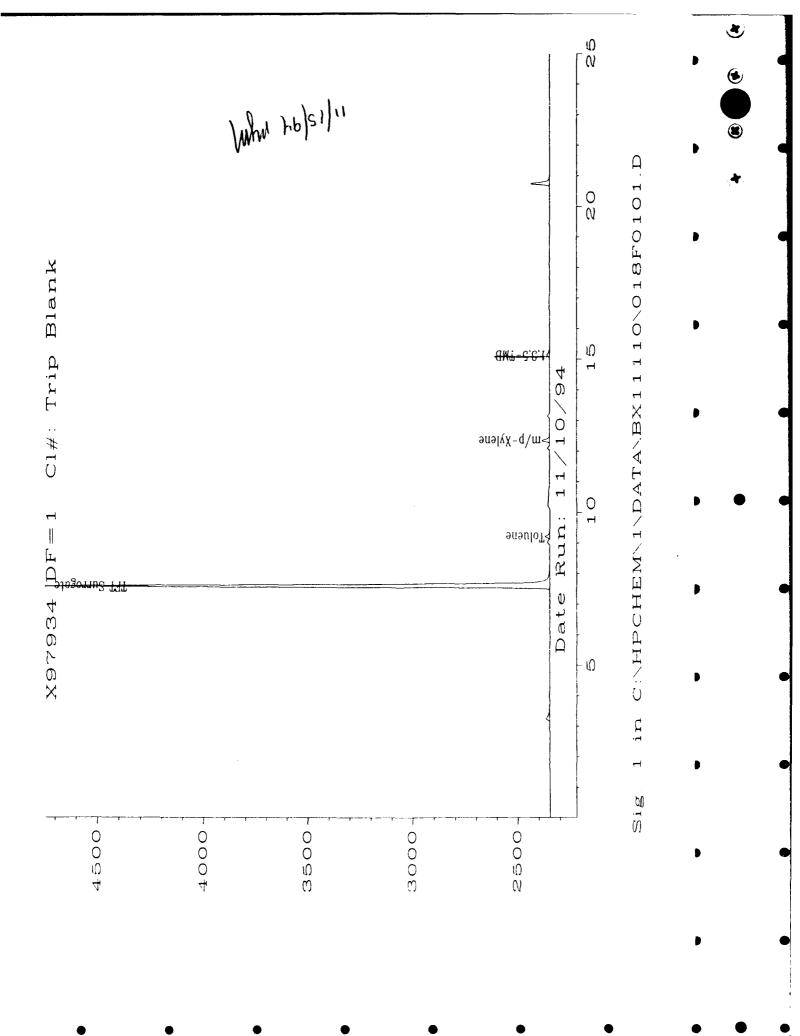
B = Compound found in blank and sample. Compare blank and sample data.

MDL = Method Detection Limit.

NA = Not available.

Approved /

Analyst



BTEX Data Report

Client Sample Number	: CPT-3-5	Client Project No.	: Madison ANG
Lab Sample Number	: X97935	Lab Project No.	: 94-4373
Date Sampled	: 11/7/94	Dilution Factor	: 1.00
Date Received	: 11/9/94	Method	: 8020
Date Extracted/Prepared	: 11/14/94	Matrix	: Soil
Date Analyzed	: 11/14/94	Lab File No.	: BX2111408
Methanol Extract?	: No	Method Blank No.	: MB111494

	Sample				
Compound Name Benzene	Cas Number	Concentration * *	PQL		
		ug/kg	ug/kg		
	71-43-2	U	4.1		
Toluene	108-88-3	0.8 BJ	4.1		
Ethyl Benzene	100-41-4	0.4 J	4.1		
Total Xylene (m/p + o)	1330-20-7	2.7 BJ	4.1		
1,3,5-trimethylbenzene	108-67-8	0.7 J	4.1		
1,2,4-trimethylbenzene	95-63-6	1.0 J	4.1		
1,2,3-trimethylbenzene	526-73-8	0.5 J	4.1		

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 117%

QC Reporting Limits : 55%-127%

QUALIFIERS:

** = All sample results & PQLs are reported on a dry weight basis.

E = Extrapolated value

U = Compound analyzed for, but not detected.

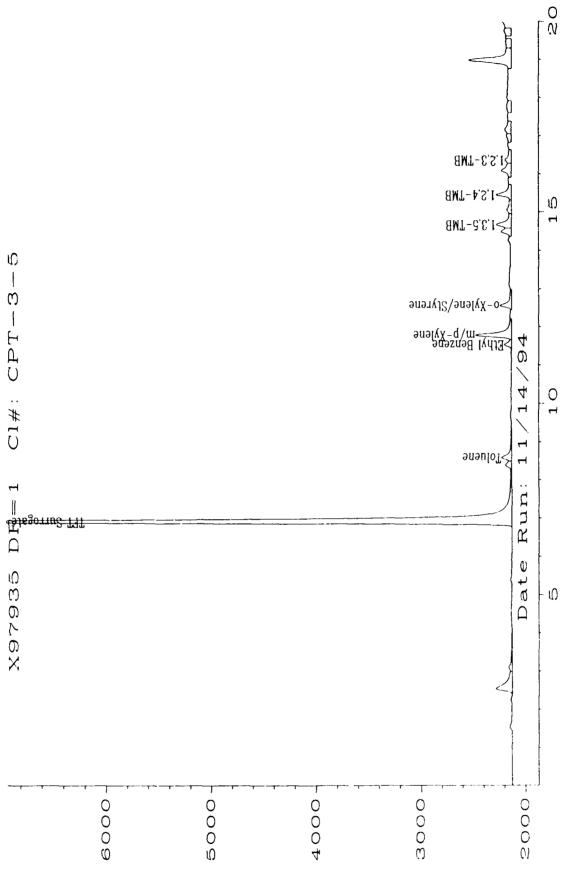
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



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BTEX Data Report

Client Sample Number Lab Sample Number Date Sampled Date Received Date Extracted/Prepared	: CPT-20-6.8 : X97936 : 11/7/94 : 11/9/94 : 11/11/94	Client Project No. Lab Project No. Dilution Factor Method Matrix	: Madison ANG : 94-4373 : 1.00 : 8020 : Soil
Date Extracted/Prepared Date Analyzed Methanol Extract?	: 11/11/94	Matrix	: Soil
	: 11/11/94	Lab File No.	: BX1111110
	: No	Method Blank No.	: MB111194

Sample

Compound Name	Cas Number	Concentration** ug/kg	PQL ug/kg
Benzene	71-43-2	U	4.3
Toluene	108-88-3	1.5 J	4.3
Ethyl Benzene	100-41-4	0.4 J	4.3
Total Xylene (m/p + o)	1330-20-7	2.2 J	4.3
1,3,5-trimethylbenzene	108-67-8	U	4.3
1,2,4-trimethylbenzene	95-63-6	U	4.3
1,2,3-trimethylbenzene	526-73-8	υ	4.3

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 90%
QC Reporting Limits : 55%-127%

QUALIFIERS:

** = All sample results & PQLs are reported on a dry weight basis.

E = Extrapolated value

U = Compound analyzed for, but not detected.

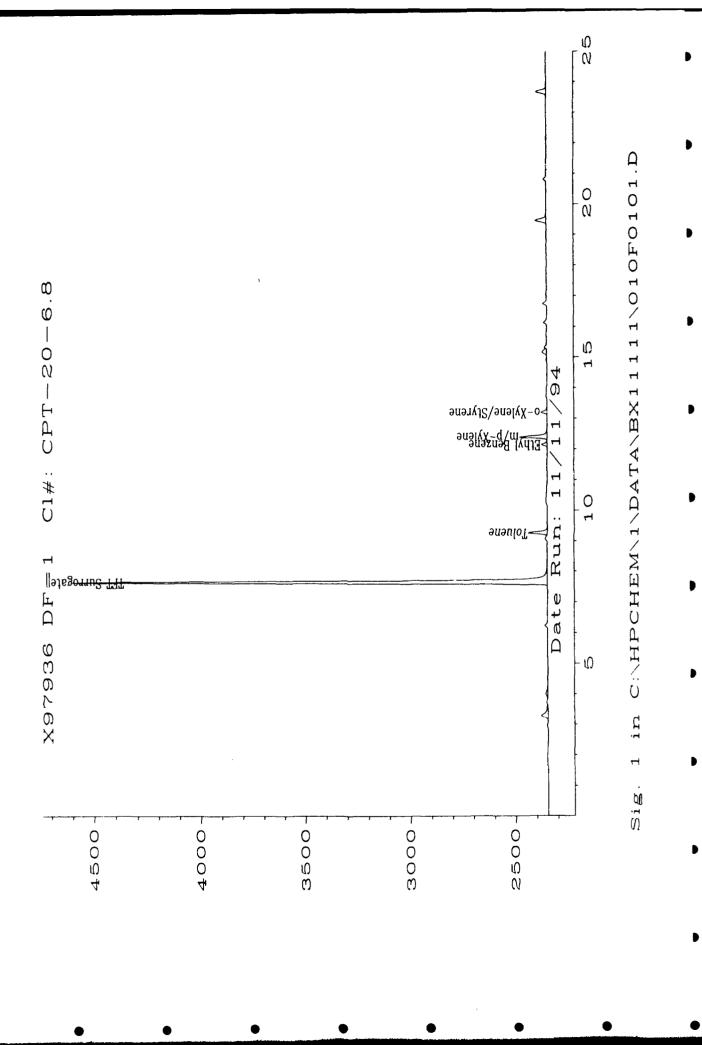
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available

Analyst



BTEX Data Report

Client Sample Number	: CPT-7-7.8	Client Project No.	: Madison ANG
Lab Sample Number	: X97937	Lab Project No.	: 94-4373
Date Sampled	: 11/7/94	Dilution Factor	: 1.00
Date Received	: 11/9/94	Method	: 8020
Date Extracted/Prepared	: 11/11/94	Matrix	: Soil
Date Analyzed	: 11/11/94	Lab File No.	: BX1111111
Methanol Extract?	: No	Method Blank No.	: MB111194

Compound Name	Cas Number	Sample Concentration * * ug/kg	PQL ug/kg 4.7	
Benzene	71-43-2	U		
Toluene	108-88-3	U	4.7	
Ethyl Benzene	100-41-4	U	4.7	
Total Xylene (m/p + o)	1330-20-7	U	4.7	
1,3,5-trimethylbenzene	108-67-8	U	4.7	
1,3,5-unneuryibenzene	100-07-6	U	4.7	
1,2,4-trimethylbenzene	95-63-6	U	4.7	
1,2,3-trimethylbenzene	526-73-8	U	4.7	

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 88% QC Reporting Limits : 55%-127%

QUALIFIERS:

** = All sample results & PQLs are reported on a dry weight basis.

E = Extrapolated value

U ≈ Compound analyzed for, but not detected.

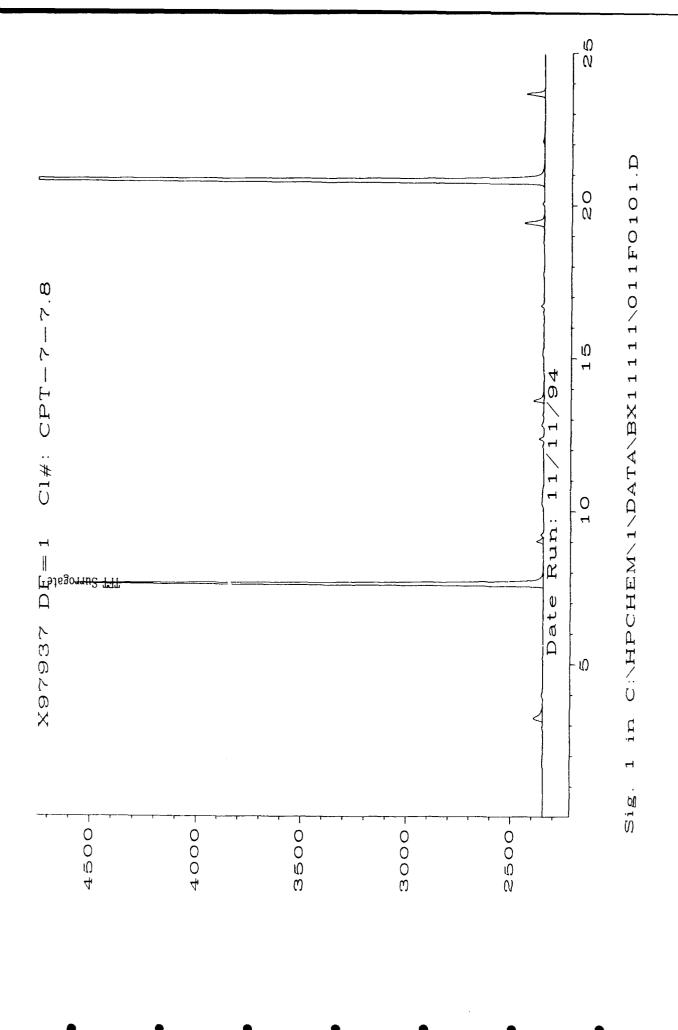
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



BTEX Data Report

Client Sample Number	: CPT-9-5.5	Client Project No.	: Madison ANG
Lab Sample Number	: X97938	Lab Project No.	: 94-4373
Date Sampled	: 11/7/94	Dilution Factor	: 1.00
Date Received	: 11/9/94	Method	: 8020
Date Extracted/Prepared	: 11/11/94	Matrix	: Soil
Date Analyzed	: 11/11/94	Lab File No.	: BX1111114
Methanol Extract?	: No	Method Blank No.	: MB111194

Compound Name	Cas Number	Sample Concentration** ug/kg	PQL ug/kg 4.5	
Benzene	71-43-2	U		
Toluene	108-88-3	U	4.5	
Ethyl Benzene	100-41-4	υ	4.5	
Total Xylene (m/p + o)	1330-20-7	U	4.5	
		•		
1,3,5-trimethylbenzene	108-67-8	U	4.5	
1,2,4-trimethylbenzene	95-63-6	U	4.5	
1,2,3-trimethylbenzene	526-73-8	U	4.5	

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

82%

QC Reporting Limits

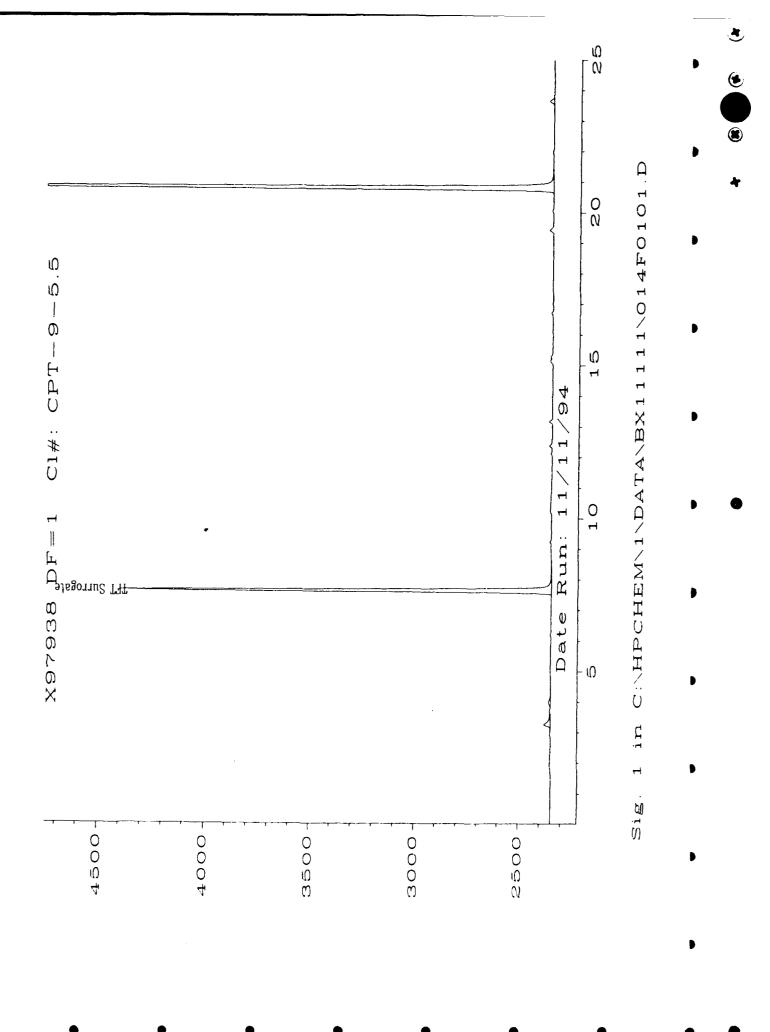
: 55%-127%

QUALIFIERS:

- ** = All sample results & PQLs are reported on a dry weight basis.
- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
- PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

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BTEX Data Report

Client Sample Number	: CPT-21-5.5	Client Project No.	: Madison ANG
Lab Sample Number	: X97939	Lab Project No.	: 94-4373
Date Sampled	: 11/7/94	Dilution Factor	: 1.00
Date Received	: 11/9/94	Method	: 8020
Date Extracted/Prepared	: 11/11/94	Matrix	: Soil
Date Analyzed	: 11/11/94	Lab File No.	: BX1111115
Methanol Extract?	: No	Method Blank No.	: MB111194

	Sample				
Compound Name	Cas Number	Concentration * *	PQL		
		ug/kg	ug/kg		
Benzene	71-43-2	U	4.5		
Toluene	108-88-3	U	4.5		
Ethyl Benzene	100-41-4	U	4.5		
Total Xylene (m/p + o)	1330-20-7	υ	4.5		
1,3,5-trimethylbenzene	108-67-8	U	4.5		
1,2,4-trimethylbenzene	95-63-6	U	4.5		
1,2,3-trimethylbenzene	526-73-8	U	4.5		

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 68% QC Reporting Limits : 55%-127%

QUALIFIERS:

** = All sample results & PQLs are reported on a dry weight basis.

E = Extrapolated value

U = Compound analyzed for, but not detected.

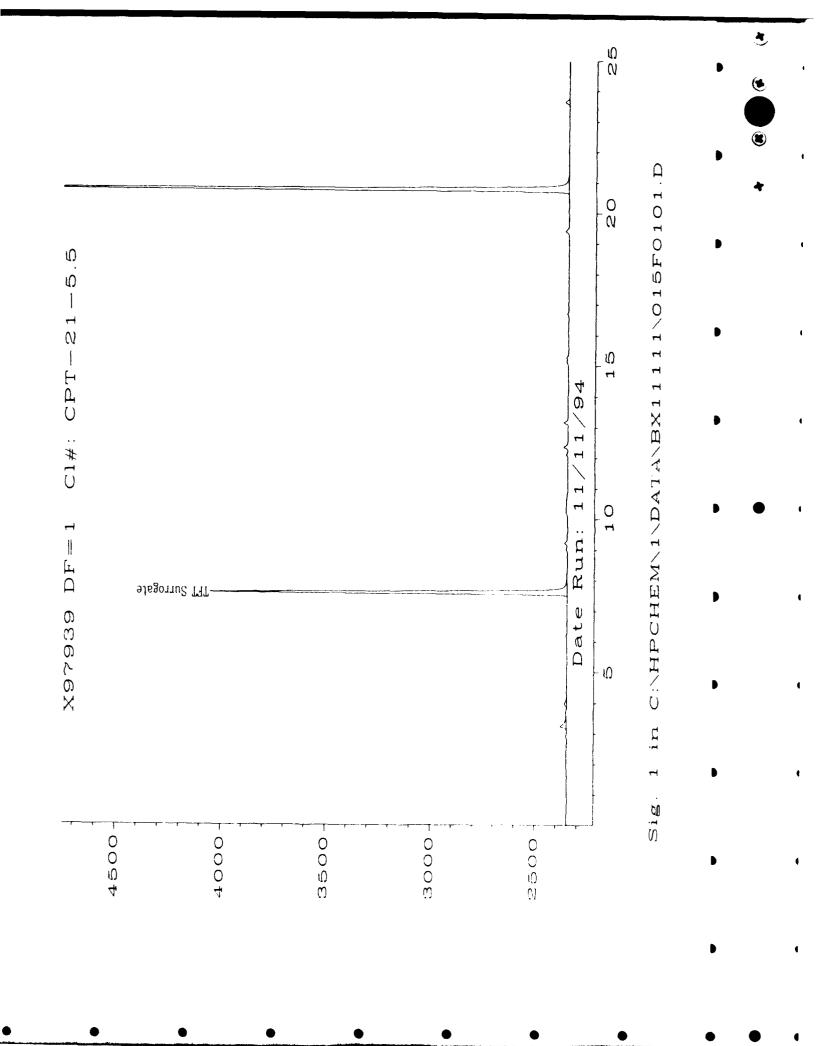
B = Compound found in blank and sample. Compare blank and sample data.

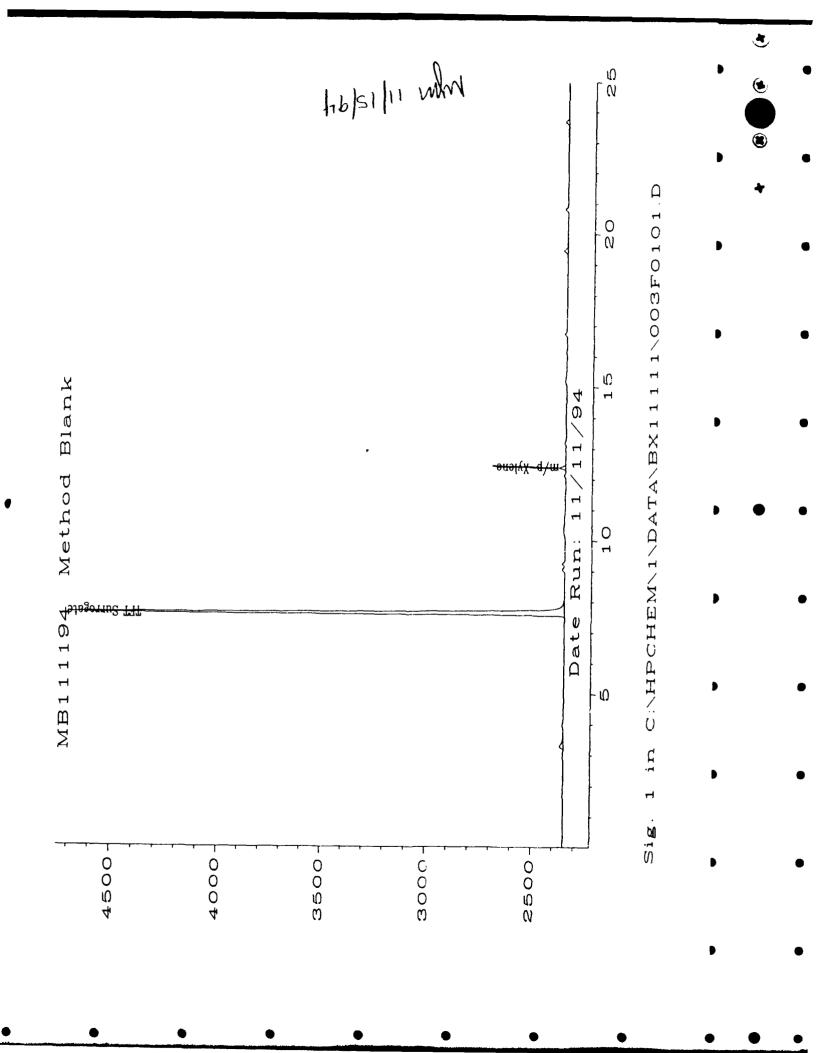
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Anaivat





BTEX Data Report Method Blank Report

Method Blank Number : MB111294

Date Extracted/Prepared : 11/12/94

Client Project No. Lab Project No.

: Madison ANG

Date Extracted/Prepared

Date Analyzed

: 11/12/94 : 11/12/94

Dilution Factor

: 94-4373: 1.00

Method Matrix : 8020 : Water

Lab File No.

: BX2111203

_			
Sa	m	D	e

	Sample				
Compound Name	Cas Number	Concentration		PQL	
		ug/	/L	ug/L	
Benzene	71-43-2		U	4	
Toluene	108-88-3	0.4	J	4	
Ethyl Benzene	100-41-4		U	4	
Total Xylene (m/p + o)	1330-20-7	0.4	J	4	
1,3,5-trimethylbenzene	108-67-8		U	4	
·			-		
1,2,4-trimethylbenzene	95-63-6		U	4	
1,2,3-trimethylbenzene	526-73-8		U	4	

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

105%

QC Reporting Limits

: 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

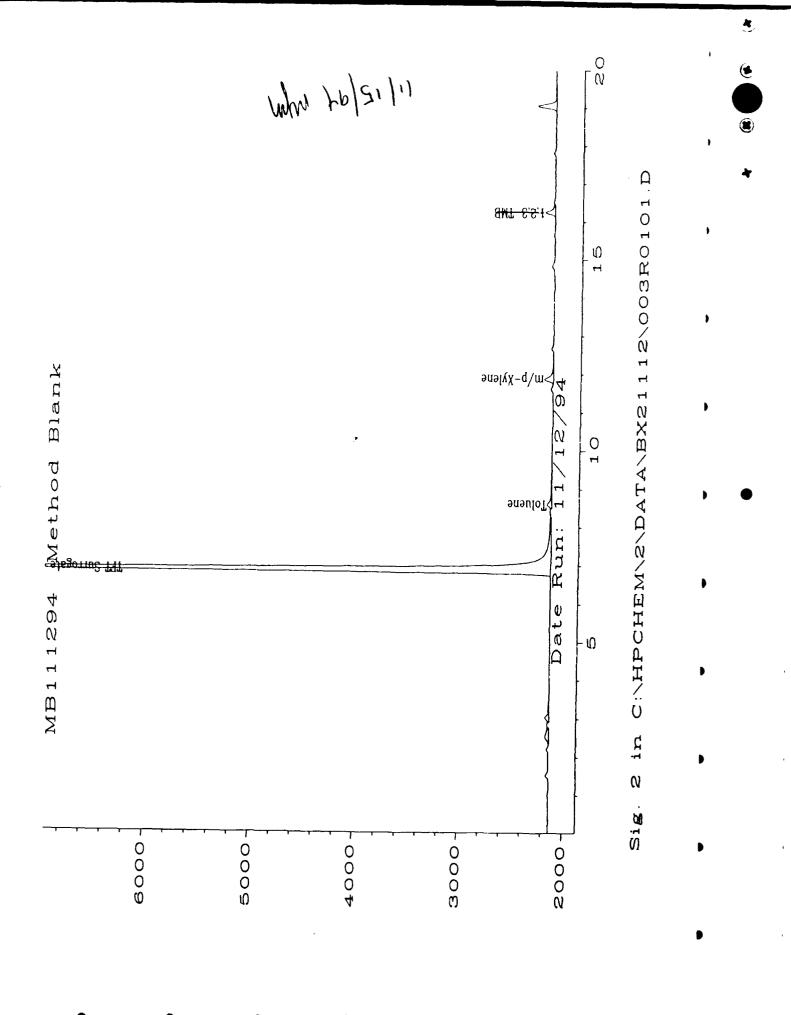
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



BTEX Data Report Method Blank Report

Method Blank Number Date Extracted/Prepared : MB111494

Client Project No.

: Madison ANG

Date Extracted/Prepared
Date Analyzed

: 11/14/94 : 11/14/94 Lab Project No. : 94-4373 Dilution Factor : 1.00

Method : 8020 Matrix : Water

Lab File No.

: BX2111403

Sample

Compound Name	Cas Number	Concentration	n PQL
		ug/L	ug/L
Benzene	71-43-2	υ	4
Toluene	108-88-3	0.4 J	4
Ethyl Benzene	100-41-4	U	4
Total Xylene (m/p + o)	1330-20-7	0.4 J	4
1,3,5-trimethylbenzene	108-67-8	U	4
1,2.4-trimethylbenzene	95-63-6	U	4
1,2,3-trimethylbenzene	526-73-8	U	4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Note: High surrogate recovery due to increased sensitivity of initial runs.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

119%

QC Reporting Limits

: 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

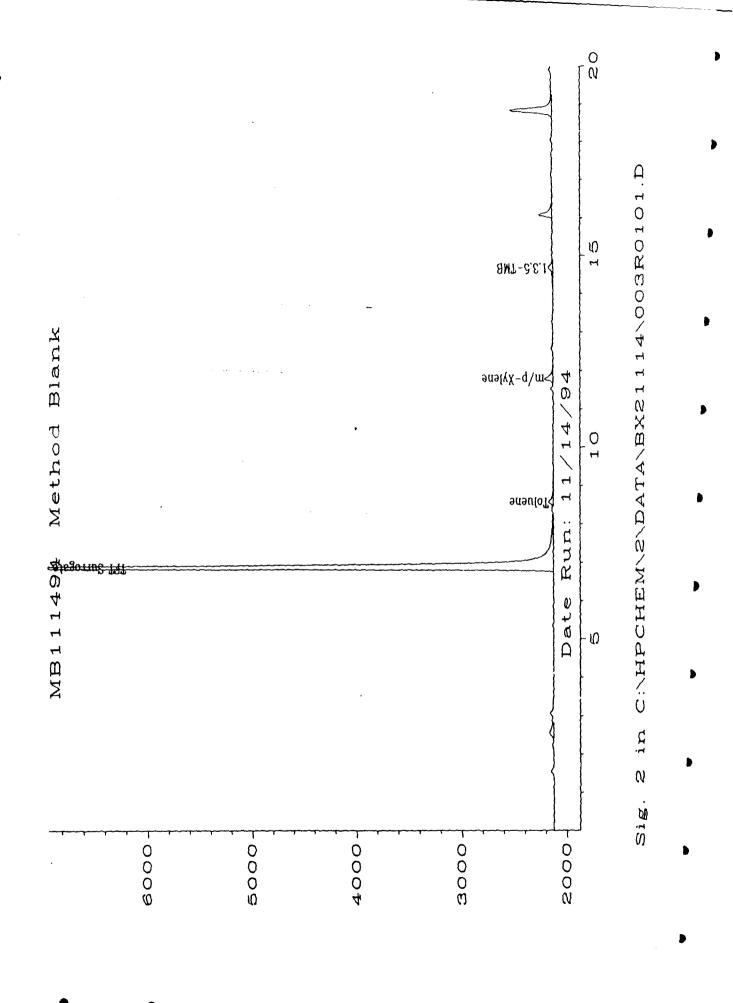
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The POL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



BTEX Data Report Laboratory Control Sample (LCS)

LCS Number : LCS111494 Client Project No.

: Madison ANG

Date Extracted/Prepared

: 11/14/94

Lab Project No.

: 94-4373

Date Analyzed : 11/14/94

Dilution Factor

: 1.00

Method

: 8020

Matrix

: Water

Lab File No.

: BX2111411

LCS

		LOO	
Compound Name	Cas Number	Concentration ug/L	QC Limit ug/L
Benzene	71-43-2	30	29-47
Toluene	108-88-3	38	30-42
Ethyl Benzene	100-41-4	42	31-43
m/p-Xylene	NA	43	31-42
o-Xylene	95-47-6	42	31-42
1,3,5-trimethylbenzene	108-67-8	34	NA
1,2,4-trimethylbenzene	95-63-6	33	NA
1,2,3-trimethylbenzene	526-73-8	38	NA

Note: Total Xylene consist of three isomers, two of which co-elute. The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

92%

QC Reporting Limits

: 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

BTEX Water Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No. Client Project No. : Madison ANG : CPT-19S : 94-4373 Lab Sample No. : X97931 Lab Project No. **Date Sampled EPA Method No.** : 602 : 11/7/94 **Date Received** : 11/9/94 Matrix : Water

 Date Prepared
 : 11/10/94
 Lab File Number(s)
 : BX1111019,20

 Date Analyzed
 : 11/11/94
 Method Blank
 : MB111194

	Spike	Sample	MS		QC
Compound	Added	Concentration	Concentration	MS	Limits
	(ug/L)	(ug/L)	(ug/L)	%REC	%REC
Benzene	20	0	16.8	84	65-121
Toluene	20	0.6	16.7	80.5	69-117
Ethyl Benzene	20	0.7	16.8	80.5	68-118
m/p-Xylene	20	2.5	16.5	70	66-116
o-Xylene	20	1.8	17.3	77.5	73-117
1,3,5-TMB	20	3.3	18	73.5	65-121
1,2,4-TMB	20	7.7	17.9	51*	65-121
1,2,3-TMB	20	2.1	18.8	83.5	65-121

	Spike	MSD			T	(C
Compound	Added	Concentration	MS	RPD		Lic	mits
	(ug/L)	(ug/L)	%REC			RPD	%REC
Benzene	20	10.9	54.5*	42.6	*	17.4	65-121
Toluene	20	10.6	50*	46.7	*	15.8	69-117
Ethyl Benzene	20	10.7	50*	46.7	*	11.9	68-118
m/p-Xylene	20	10.3	39*	56.9	•	15.4	66-116
o-Xylene	20	11.4	48*	47.0	*	13.2	73-117
1,3,5-TMB	20	10.8	37.5*	64.9	٠	17.4	65-121
1,2,4-TMB	20	11.5	19*	91.4	•	17.4	65-121
1,2,3-TMB	20	12.7	53*	44.7	*	17.4	65-121

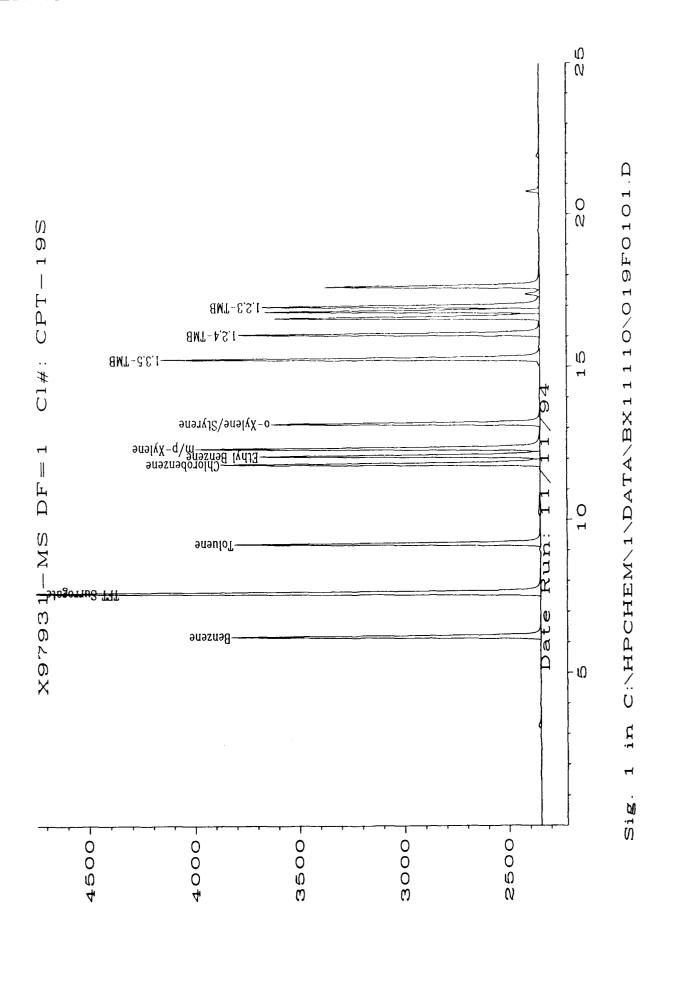
• =	Values	outside	of O	C	limits.
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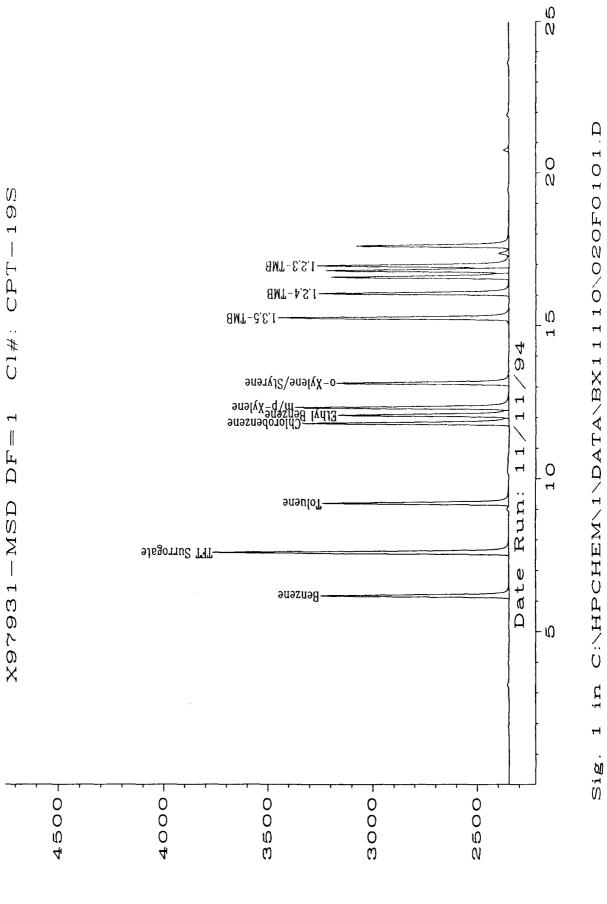
RPD: 8 out of (8) outside limits.

Spike Recovery: 9 out of (16) outside limits.

Comments: CJC

MS surrogate recovery: 92%. MSD surrogate recovery: 47%.





Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

BTEX Water Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No. : CPT-3-5 Client Project No. : Madison ANG : X97935 Lab Sample No. Lab Project No. : 94-4373 EPA Method No. **Date Sampled** : 8020 : 11/7/94 **Date Received** : 11/9/94 Matrix : Soil

 Date Prepared
 : 11/11/94
 Lab File Number(s)
 : BX11111118,19

 Date Analyzed
 : 11/12/94
 Method Blank
 : MB111194

Compound	Spike Added (ug/L)	Sample Concentration (ug/L)	MS Concentration (ug/L)	MS %REC	QC Limits %REC
Benzene	20	0	17.3	86.5	65-121
Toluene	20	0.5	17.2	83.5	69-117
Ethyl Benzene	20	0	17.1	85.5	68-118
m/p-Xylene	20	0.4	17.4	85	66-116
o-Xylene	20	0	17.1	85.5	73-117
1,3,5-TMB	20	0	16.0	80	65-121
1,2,4-TMB	20	0.5	16.1	78	65-121
1,2,3-TMB	20	0	17.3	86.5	65-121

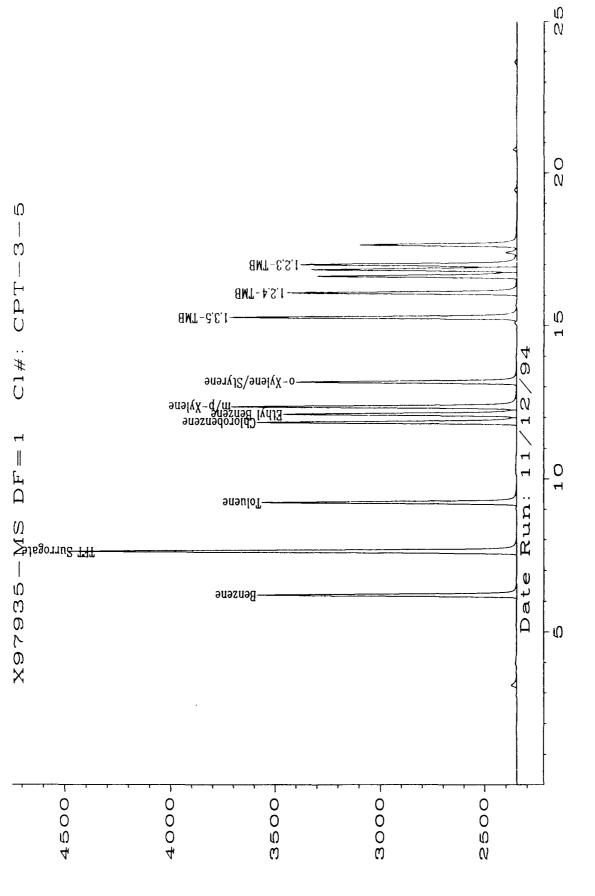
	Spike	MSD				C
Compound	Added	Concentration	MS	RPD	Lie	mits
	(ug/L)	(ug/L)	%REC		RPD	%REC
Benzene	20	16.2	81	6.6	17.4	65-121
Toluene	20	16.2	78.5	6.2	15.8	69-117
Ethyl Benzene	20	16.0	80	6.6	11.9	68-118
m/p-Xylene	20	16.1	78.5	8.0	15.4	66-116
o-Xylene	20	16.0	80	6.6	13.2	73-117
1,3,5-TMB	20	15.1	75.5	5.8	17.4	65-121
1,2,4-TMB	20	15.1	73	6.6	17.4	65-121
1,2,3-TMB	20	15.9	79.5	8.4	17.4	65-121

* =	Values	outside	of QC	limits.
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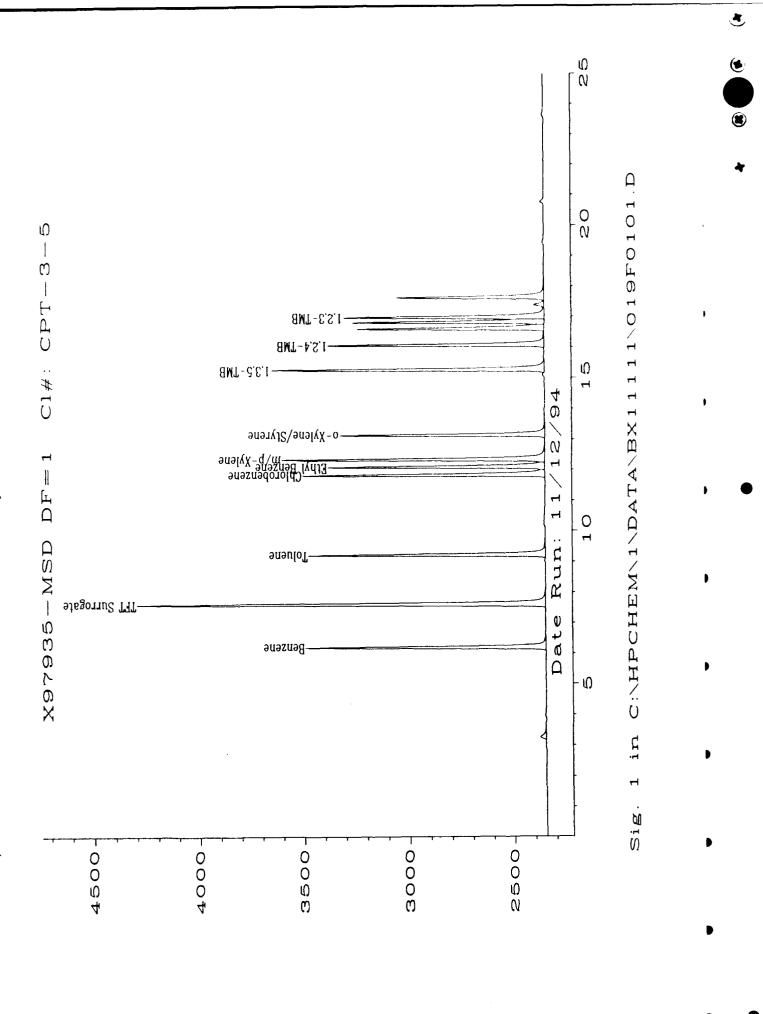
RPD: 0 out of (8) outside limits.

Spike Recovery: 0 out of (16) outside limits.

Comments: CJC



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BTEX Data Report Laboratory Control Sample (LCS)

LCS Number : LCS111094

Client Project No.

: Madison ANG

Date Extracted/Prepared

: 11/10/94

Lab Project No.

: 94-4373

Date Analyzed : 11/10/94

Dilution Factor

: 1.00

Method

: 8020

Matrix

: Water

Lab File No.

: BX1111011

	LCS				
Compound Name	Cas Number	Concentration	QC Limit		
		ug/L	ug/L		
Benzene	71-43-2	29	29-47		
Toluene	108-88-3	35	30-42		
Ethyl Benzene	100-41-4	39	31-43		
m/p-Xylene	NA	38	31-42		
o-Xylene	95-47-6	39	31-42		
1,3,5-trimethylbenzene	108-67-8	33	NA		
1,2,4-trimethylbenzene	95-63-6	32	NA		
1.2.3-trimethylbenzene	526-73-8	38	NA		

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

93%

QC Reporting Limits

: 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

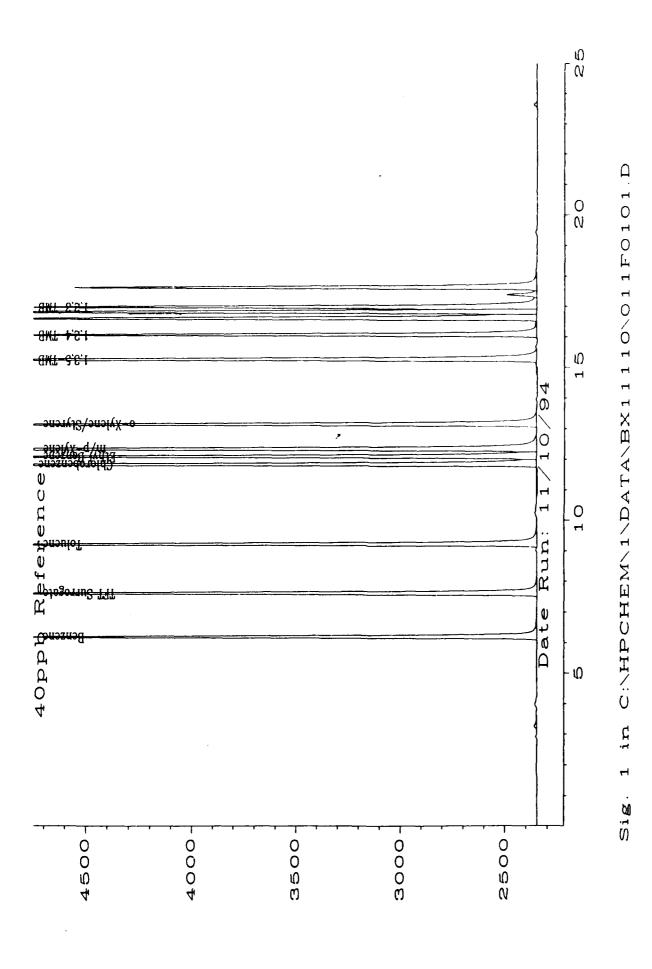
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available,

Analyst



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BTEX Data Report Laboratory Control Sample (LCS)

LCS Number : LCS111194 Client Project No.

Date Extracted/Prepared

: 11/11/94

Lab Project No. **Dilution Factor**

: Madison ANG

Date Analyzed : 11/11/94

: 94-4373 : 1.00

Method Matrix

: 8020 : Water

Lab File No.

: BX1111112

	LCS				
Compound Name	Cas Number	Concentration	QC Limit		
		ug/L	ug/L		
Benzene	71-43-2	28	29-47		
Toluene	108-88-3	34	30-42		
Ethyl Benzene	100-41-4	37	31-43		
m/p-Xylene	NA	38	31-42		
o-Xylene	95-47-6	39	31-42		
1,3,5-trimethylbenzene	108-67-8	33	NA		
1,2,4-trimethylbenzene	95-63-6	33	NA		
1.2.3-trimethylbenzene	526-73-8	38	NA		

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

89%

QC Reporting Limits

: 77%-116%

QUALIFIERS:

E = Extrapolated value

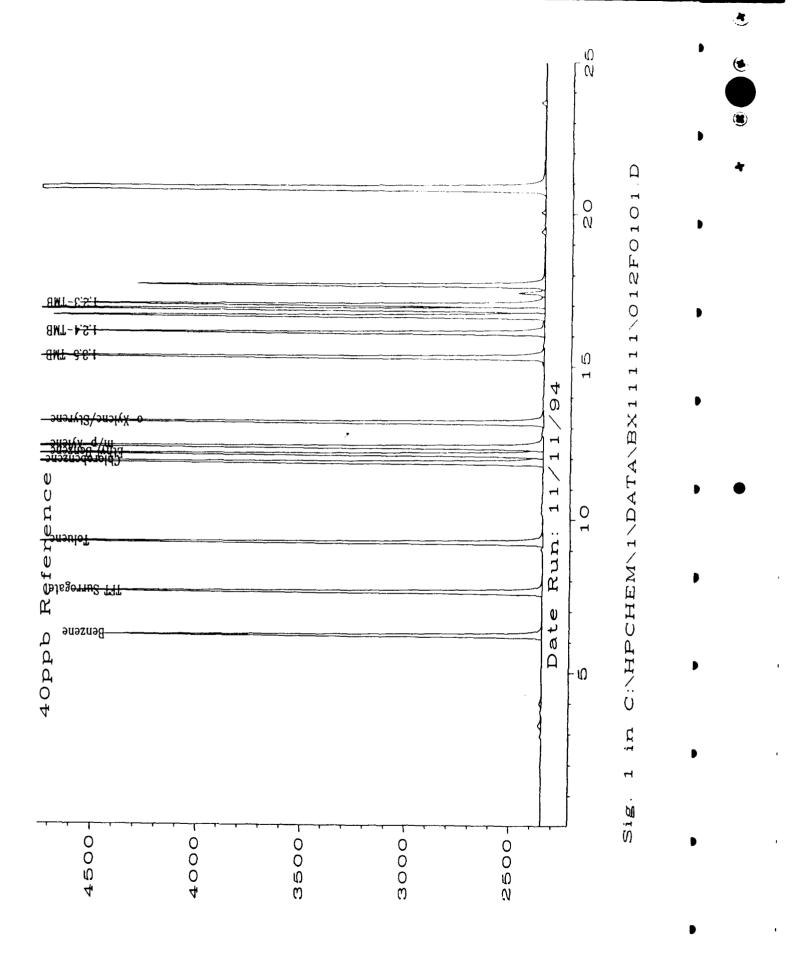
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available



BTEX Data Report Laboratory Control Sample (LCS)

LCS Number : LCS111294
Date Extracted/Prepared : 11/12/94

Client Project No. : Madison ANG Lab Project No. : 94-4373

Date Analyzed : 11/12/94

Dilution Factor : 1.00

Method : 8020

Matrix : Water

Lab File No. : BX2111213

LCS

	EOC.				
Compound Name	Cas Number	Concentration	QC Limit		
		ug/L	ug/L		
Benzene	71-43-2	30	29-47		
Toluene	108-88-3	37	30-42		
Ethyl Benzene	100-41-4	40	31-43		
m/p-Xylene	NA	40	31-42		
o-Xylene	95-47-6	41	31-42		
1,3,5-trimethylbenzene	108-67-8	34	NA		
1,2,4-trimethylbenzene	95-63-6	32	NA		
1,2,3-trimethylbenzene	526-73-8	37	NA		

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 97% QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

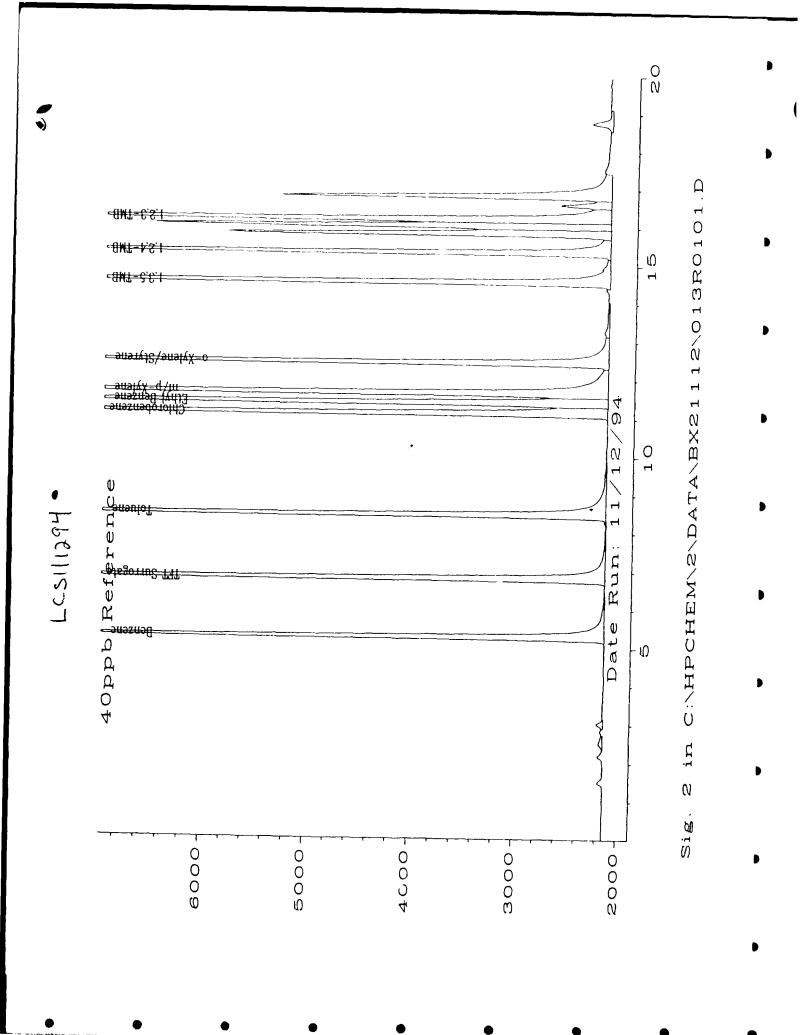
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Apalyst



TOTAL EXTRACTABLE HYDROCARBONS (TEH)

Date Sampled : 11/7/94 Date Received : 11/9/94

Date Prepared : 11/9/94

Date Analyzed : 11/11,12/94

Client Project Number

: 722450.01000

Madison ANG : 94-4373

Lab Project Number : Matrix :

: Water

Method Number

: 3500/Mod.8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TEH mg/L	MDL mg/L
WB110994	Water Method Blank	90%	u	0.5
X97928	CPT-1D	132%	U	0.5
X97929	CPT-5S	128%	U	0.5
X97930	CPT-5D	110%	U	0.5
X97931	CPT-19S	118%	U	0.5
X97932	CPT-20	117%	U	0.5
X97933	CPT-20 Duplicate	115%	U	0.5

QUALIFIERS

U = TEH analyzed for but not detected.

B = TEH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

MDL = Method Detection Limit

Analyst

TOTAL EXTRACTABLE HYDROCARBONS (TEH)

Date Sampled

: 11/7/94

Client Project Number

: 722450.01000

Date Received

: 11/9/94

Lab Project Number

Madison ANG

Date Prepared

: 11/10/94

: 94-4373

Date Analyzed

: 11/11,12/94

Matrix

: Soil

Method Number

: 3500/Mod. 8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TEH * mg/Kg	MDL mg/Kg
SB111094	Soil Method Blank	114%	U	10
X97935	CPT 3-5	119%	U	10
X97936	CPT 20-6.8	120%	υ	11
X97937	CPT 7-7.8	121%	U	12
X97938	CPT 9-5.5	129%	U	11
X97939	CPT 21-5.5	139%	U	11

QUALIFIERS

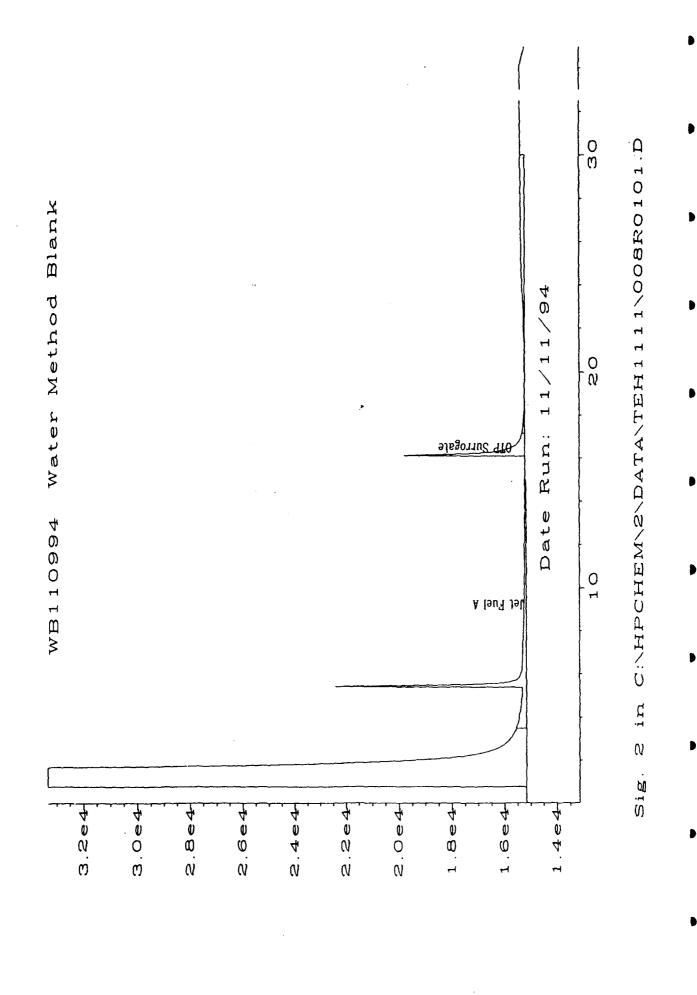
U = TEH analyzed for but not detected.

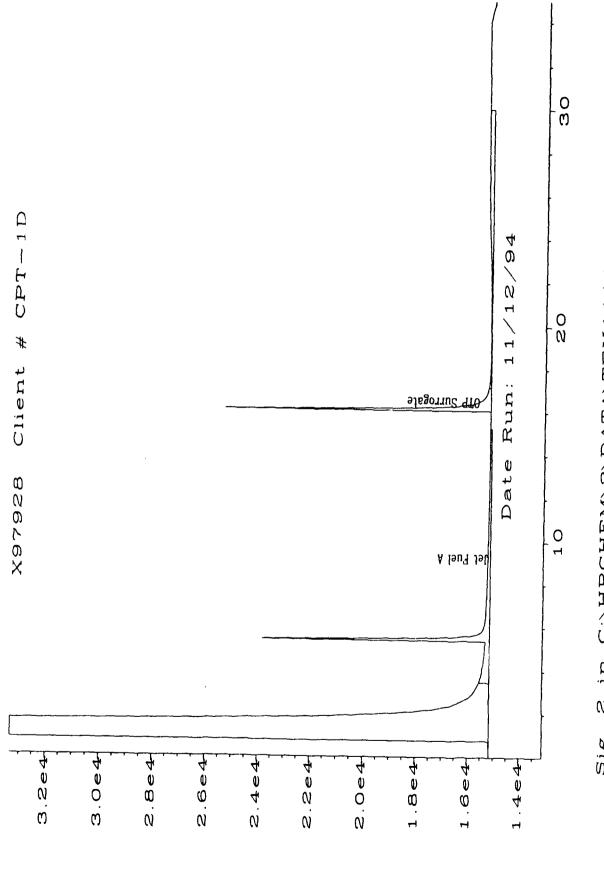
B = TEH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

MDL = Method Detection Limit

^{• =} Sample and MDL values are reported on a dry weight basis.





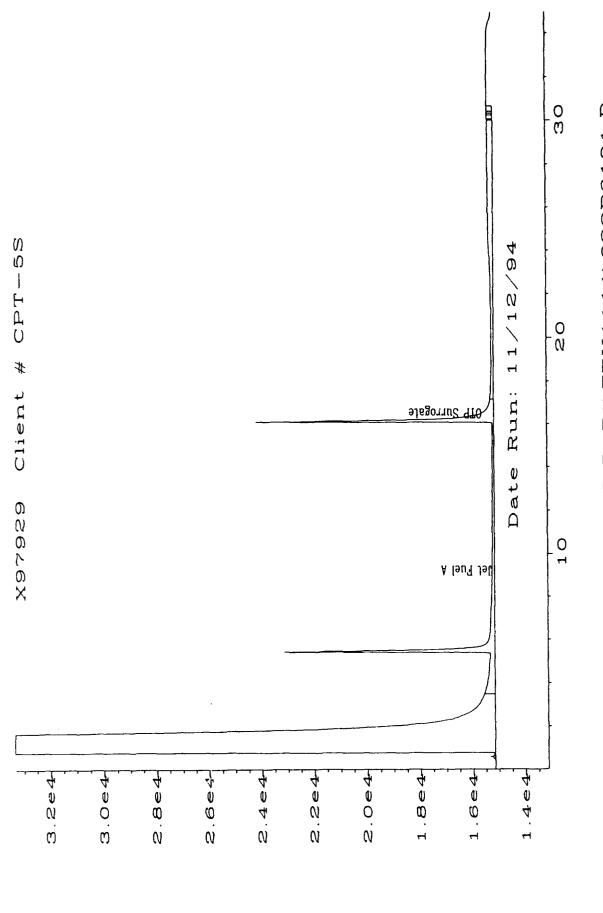
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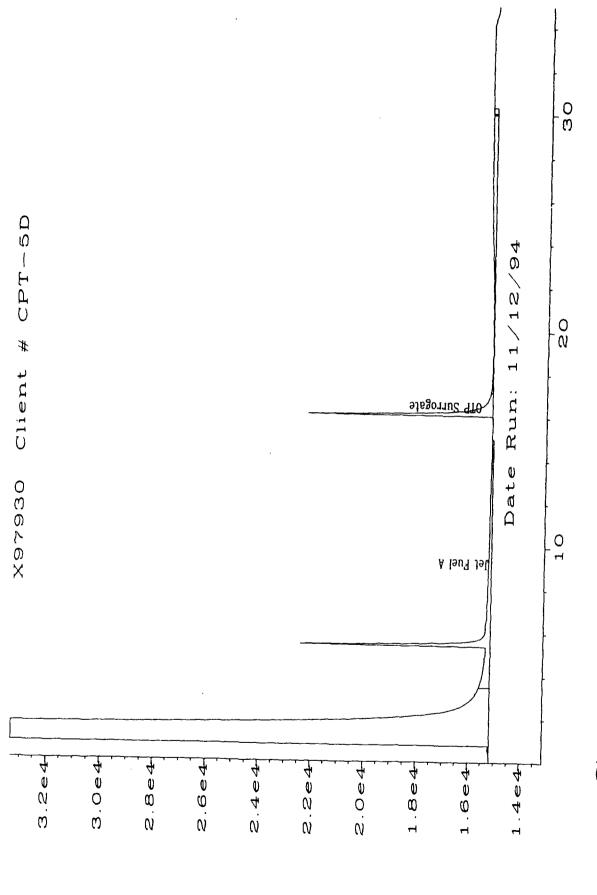


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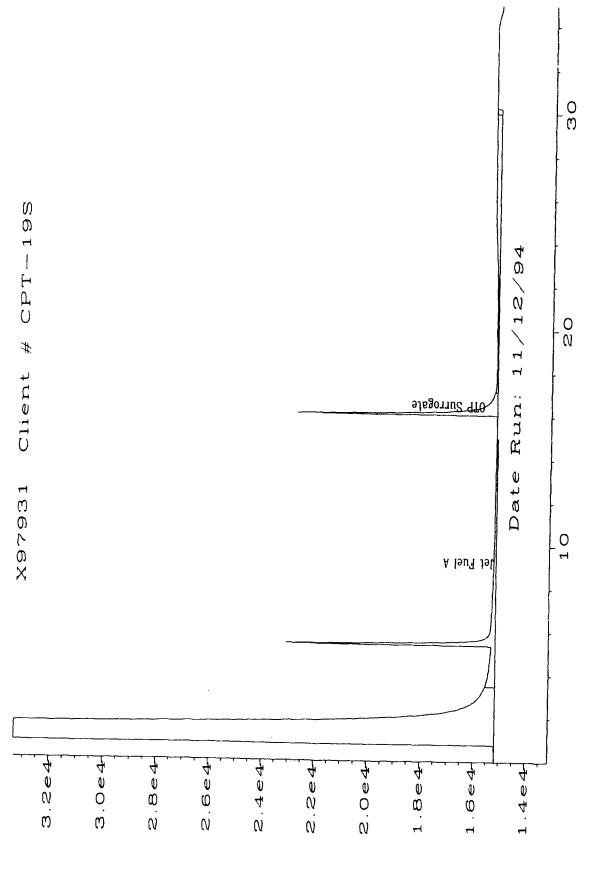
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C:\HPCHEM\2\DATA\TEH1111\023R0101.D s in Sig.

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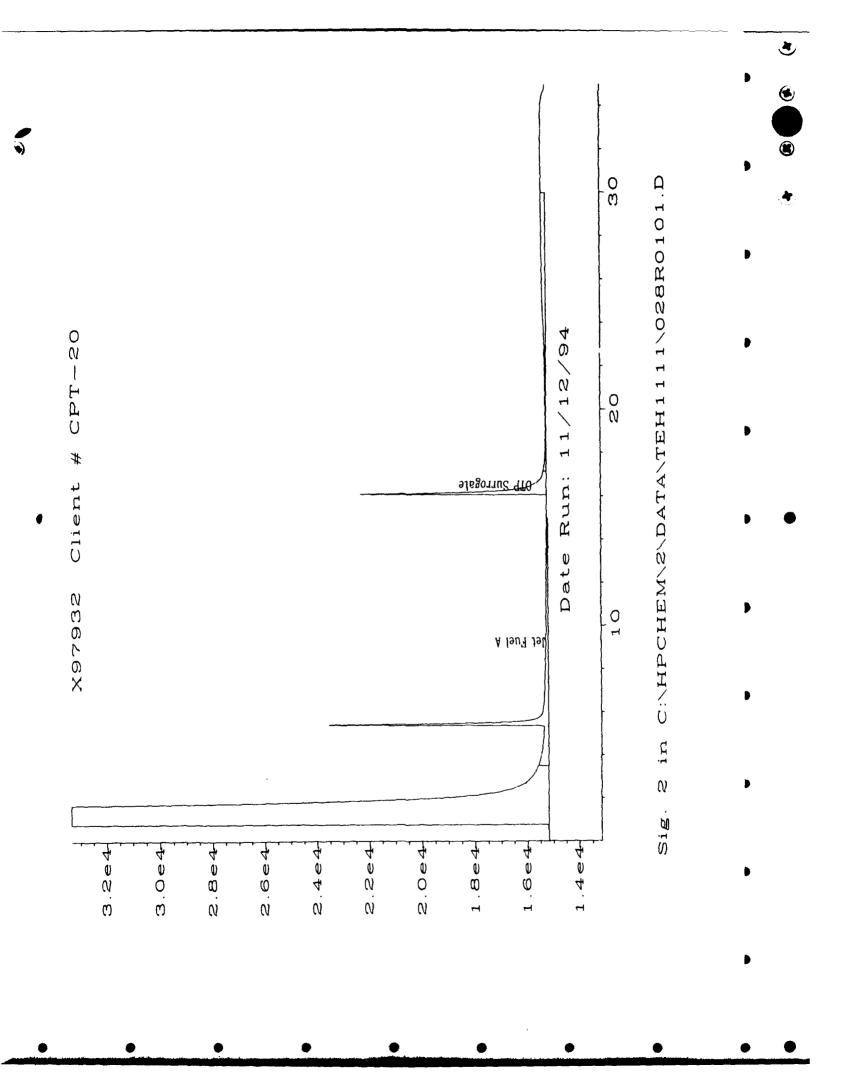
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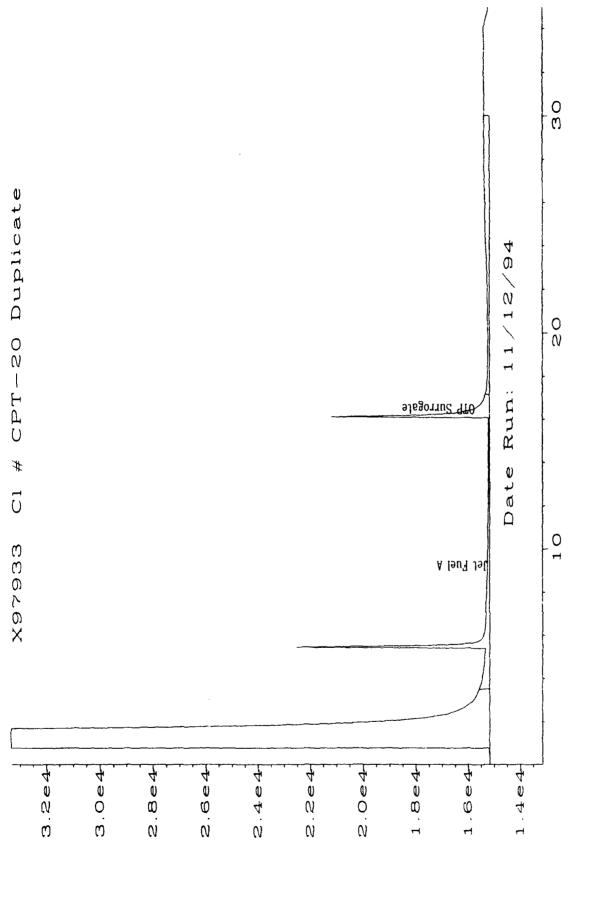
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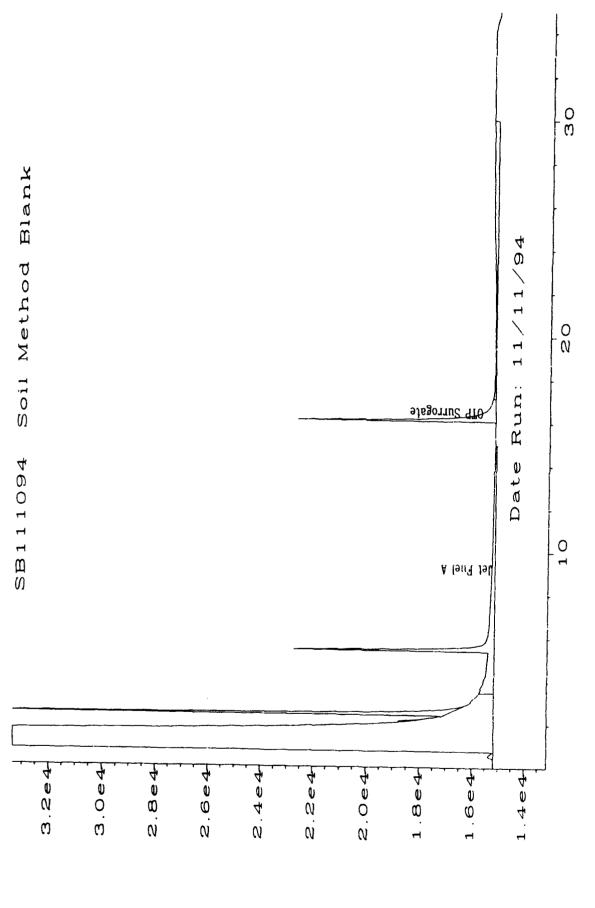
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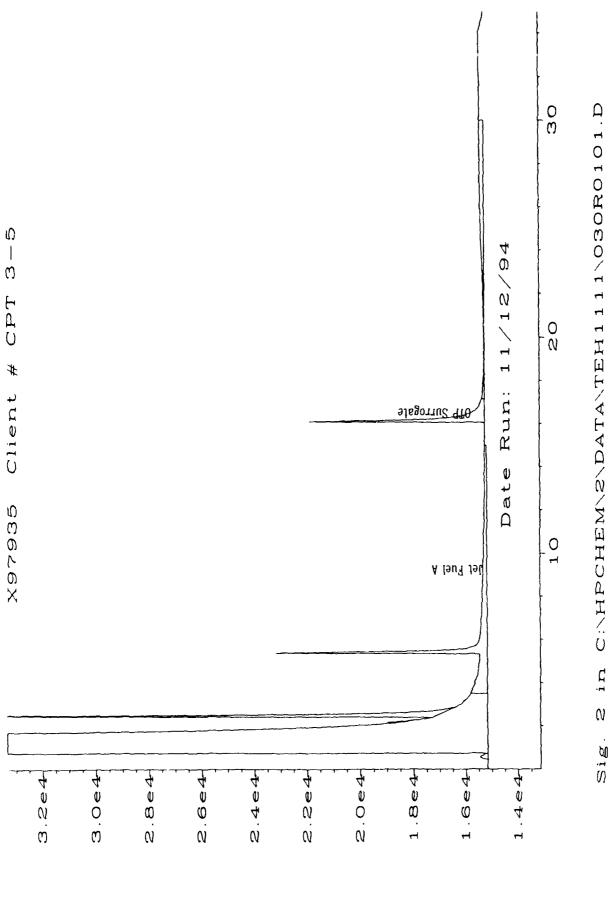


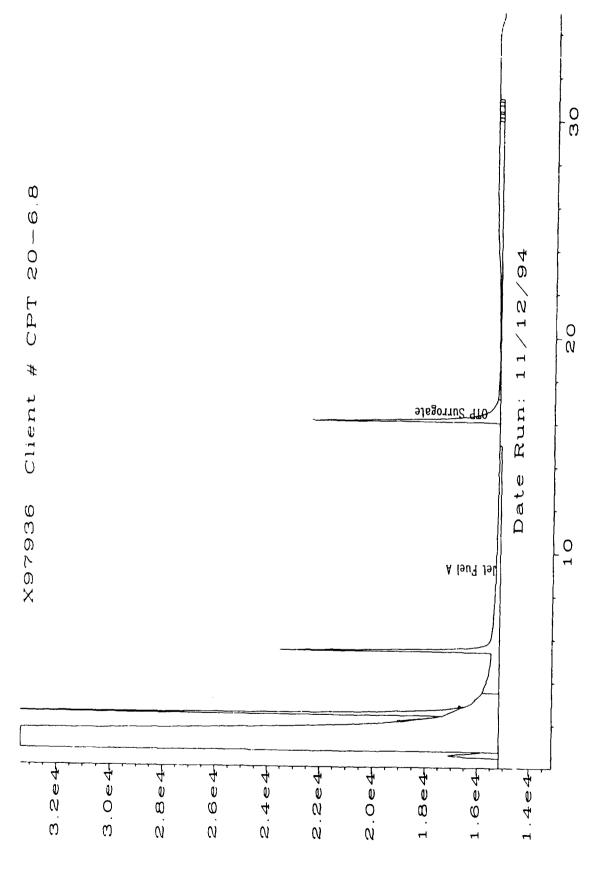
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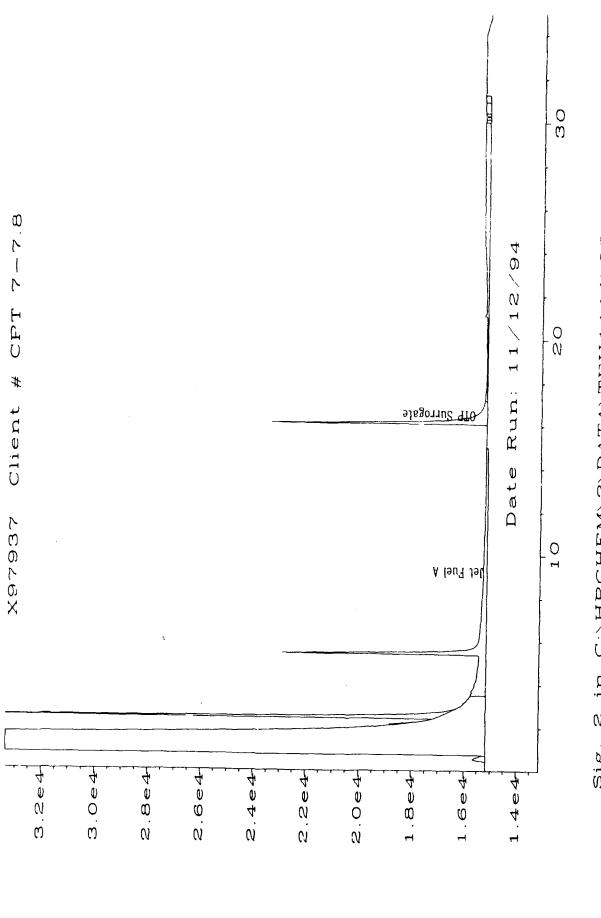
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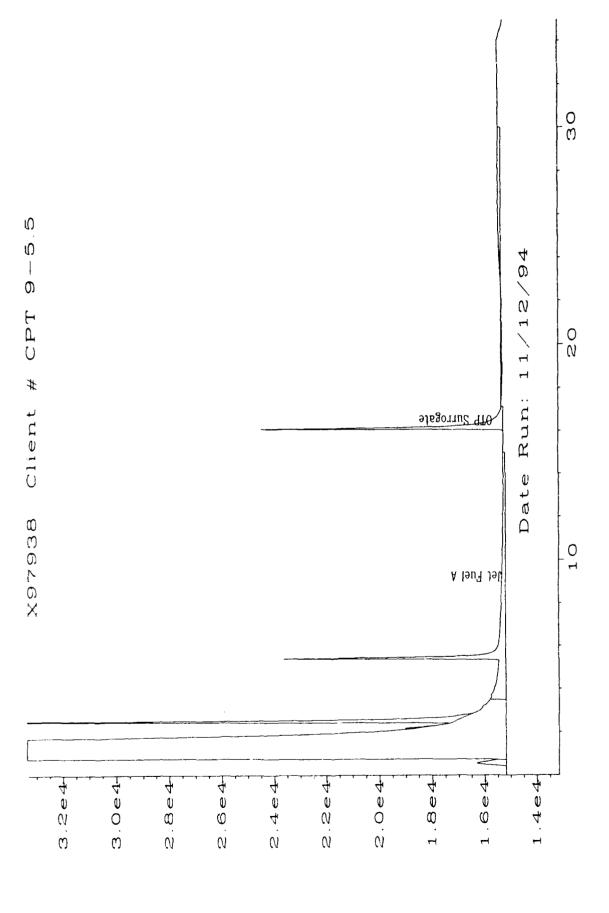
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3

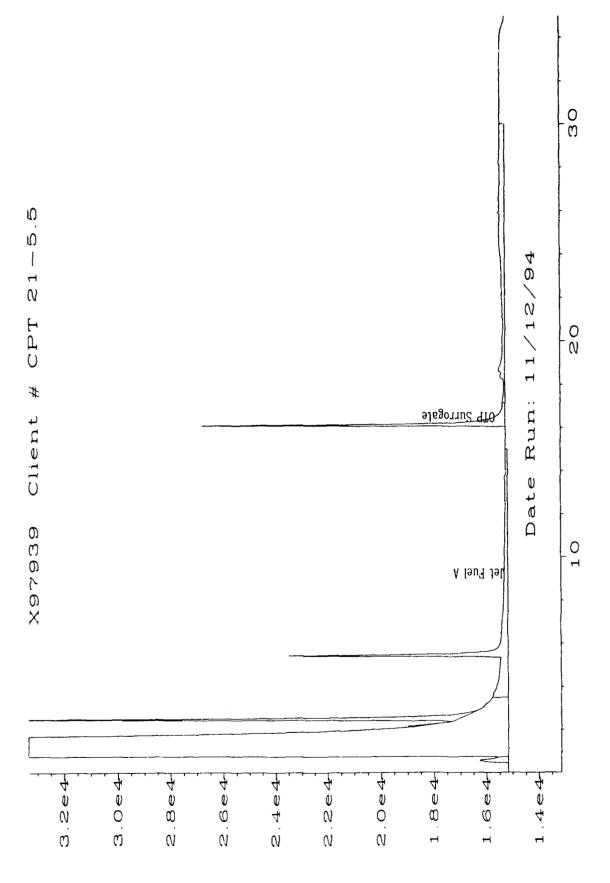


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2 in C:\HPCHEM\2\DATA\TEH1111\036R0101.D Sig

TOTAL EXTRACTABLE HYDROCARBONS TEH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.

: CPT-19S

Client Project No.

: 722450.01000

Lab Sample No.

: X97931

: 94-4373 Lab Project No.

Madison ANG

Date Sampled **Date Received** : 11/7/94 : 11/9/94

EPA Method No.

: 3500/8015 Mod

Date Prepared Date Analyzed : 11/9/94 : 11/12/94

Matrix Method Blank

: WB110994

: Water

	Spike	Sample	MS		QC
Compound	Added	Concentration	Concentration	MS	Limits
	(ug/mL)	(ug/mL)	(ug/mL)	%REC	%REC
Diesel No.2	1000	0	1000	100	60-140

* = Values outside of QC limits.

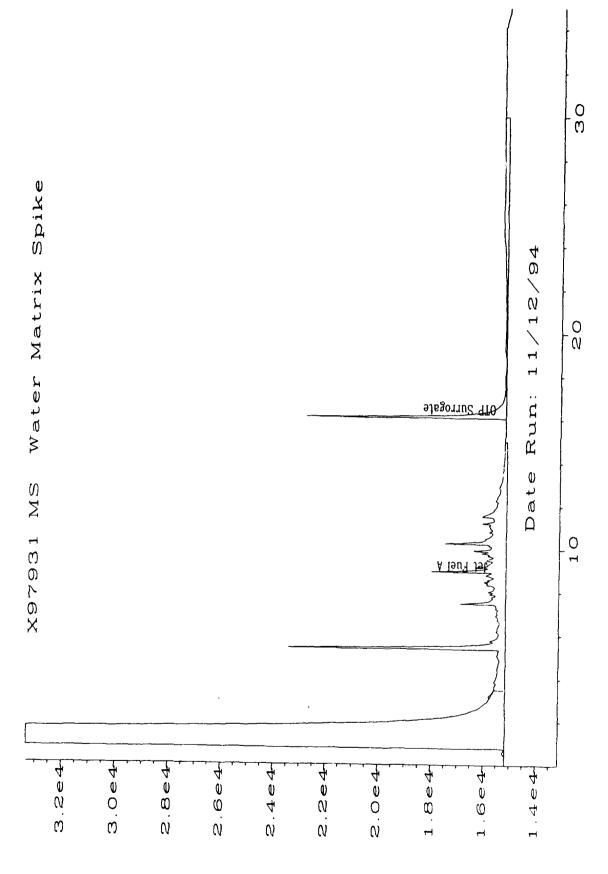
RPD:

NA out of (1) outside limits.

Spike Recovery:

0 __ out of (1) outside limits.

Comments:



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TOTAL EXTRACTABLE HYDROCARBONS TEH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.

: CPT 3-5

Client Project No.

: 722450.01000

Lab Sample No.

: X97935

Madison ANG : 94-4373

Date Sampled

: 11/7/94

Lab Project No. EPA Method No.

: 3500/8015 Mod

Date Received Date Prepared

: 11/9/94 : 11/10/94

Matrix

: Soil

Date Analyzed

: 11/10/94 : 11/12/94

Method Blank

: SB111094

	Spike	Sample	MS		QC
Compound	Added	Concentration	Concentration	MS	Limits
	(ug/mL)	(ug/mL)	(ug/mL)	%REC	%REC
Diesel No.2	1000	0	1121	112.1	60-140

	Spike	MSD				CC
Compound	Added	Concentration	MS	RPD	Limits	
	(ug/mL)	(ug/mL)	%REC		RPD	%REC
Diesel No.2	1000	1202	120.2	7.0	50	60-140

*= Values outside of QC limits.

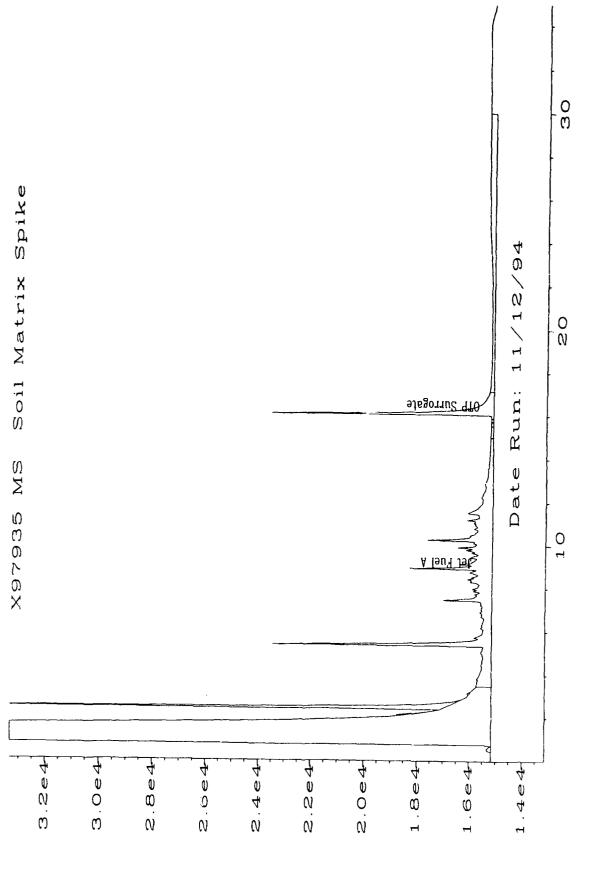
RPD:

0 out of (1) outside limits.

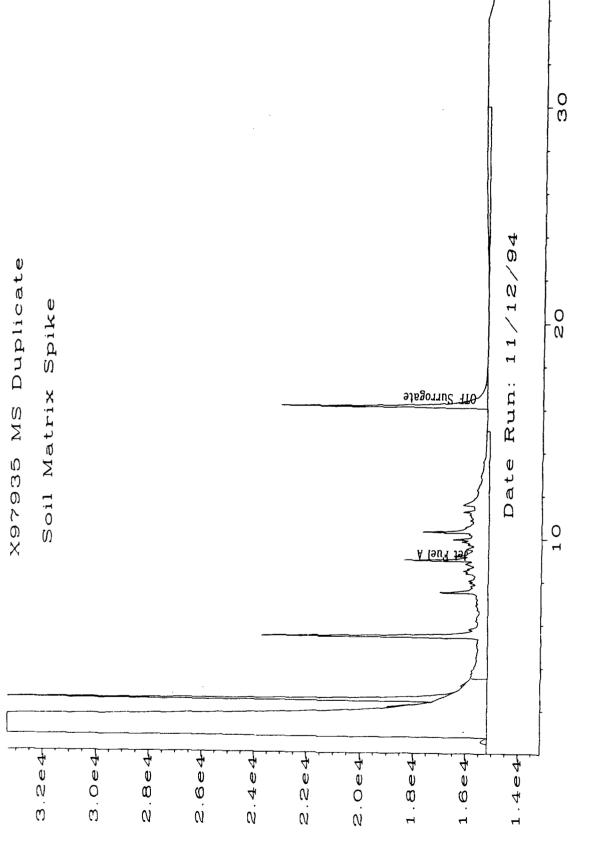
Spike Recovery:

0 out of (1) outside limits.

Comments:



C:\HPCHEM\2\DATA\TEH1111\031R0101.D in W Sig.



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EVERGREEN ANALYTICAL, INC. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL EXTRACTABLE HYDROCARBONS (TEH) Laboratory Control Sample (LCS)

LCS Number

: LCS111094*

Client Project Number

: 722450.01000

Date Prepared

: 11/10/94

Madison ANG

Date Analyzed

: 11/12/94

Lab Project Number Matrx

: 94-4373

Sequence Number

: TEH1111

: Water

Method Number : 3500/Mod. 8015

Compound Name	Theoretical Concentration mg/L	LCS Concentrationmg/L	QC Limit mg/L
Jet Fuel A	2000	2212	1500-3500

• = Direct injected, not extracted.

QUALIFIERS

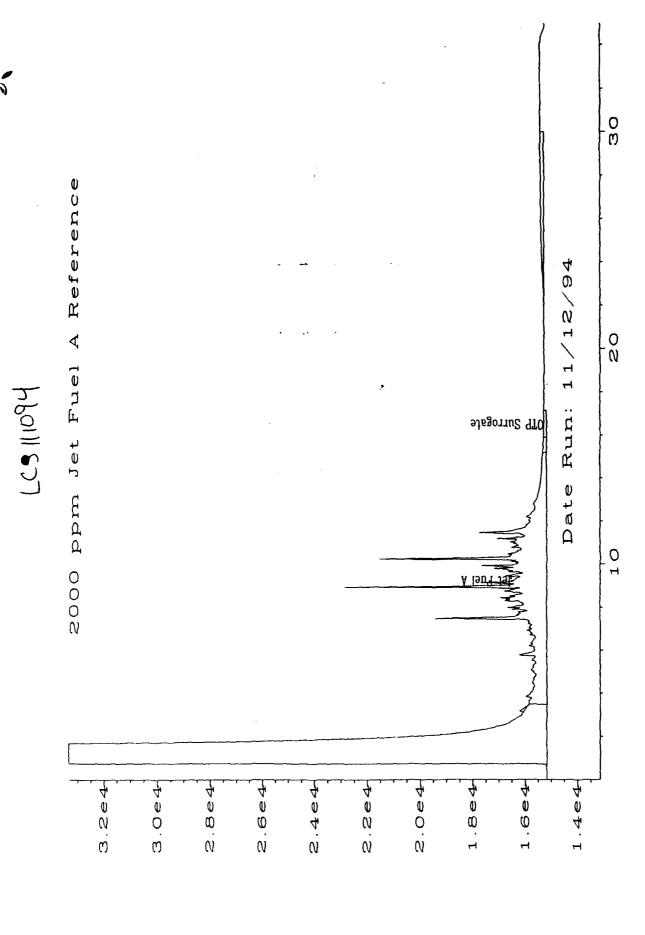
U = TEH analyzed for but not detected.

B = TEH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

NA = Not Available.

Analyst



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EVERGREEN ANALYTICAL, INC. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021



Date Sampled

: 11/7/94

Client Project Number

: Madison ANG

Date Received

: 11/9/94

Lab Project Number

: 94-4373

Date Prepared

: 11/10,11/94

Matrix

: Water

Date Analyzed

: 11/10,11/94

Method Number

: 5030/Mod.8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TVH mg/L	MDL mg/L
MB111094	Method Blank	100%	U	0.1
X97928	CPT-1D	100%	0.2	0.1
X97929	CPT-5S	102%	0.3	0.1
X97930	CPT-5D	103%	0.3	0.1
X97931	CPT-19S	105%	0.2	0.1
X97932	CPT-20	104%	U	0.1
X97933	CPT-20 Dupl.	106%	U	0.1

QUALIFIERS

U = TVH analyzed for but not detected.

B = TVH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

MDL = Method Detection Limit

Analyst

Approved

EVERGREEN ANALYTICAL, INC. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL VOLATILE HYDROCARBONS (TVH)

Date Sampled

: 11/7/94

Client Project Number

: 722450.01000

Date Received

: 11/9/94

Lab Project Number

Madison ANG : 94-4373

Date Prepared

: 11/10/94

Matrix

: Soil

Date Analyzed

: 11/10,11/94

: 5030/Mod.8015 Method Number

Evergreen Sample #	Client Sample #	Surrogate Recovery	TVH * mg/Kg	MDL mg/Kg
MB111094	Method Blank	100%	υ	0.1
X97936	CPT 20-6.8	105%	U	0.11
X97937	CPT 7-7.8	103%	U	0.12
X97938	CPT 9-5.5	104%	U	0.11
X97939	CPT 21-5.5	100%	U	0.11

QUALIFIERS

U = TVH analyzed for but not detected.

B = TVH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

MDL = Method Detection Limit

Analyst

^{• =} Sample and MDL values are reported on a dry weight basis.







TOTAL VOLATILE HYDROCARBONS (TVH)

Date Sampled

: 11/7/94

Client Project Number

: 722450.01000 Madison ANG

Date Received Date Prepared

: 11/9/94

Lab Project Number

: 94-4373

: 11/14/94

Matrix

: Soil

Date Analyzed

: 11/14/94

Method Number

: 5030/Mod.8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TVH * mg/Kg	MDL mg/Kg
MB111494	Method Blank	100%	ប	0.1
X97935	CPT 3-5	99%	U	0.1

QUALIFIERS

U = TVH analyzed for but not detected.

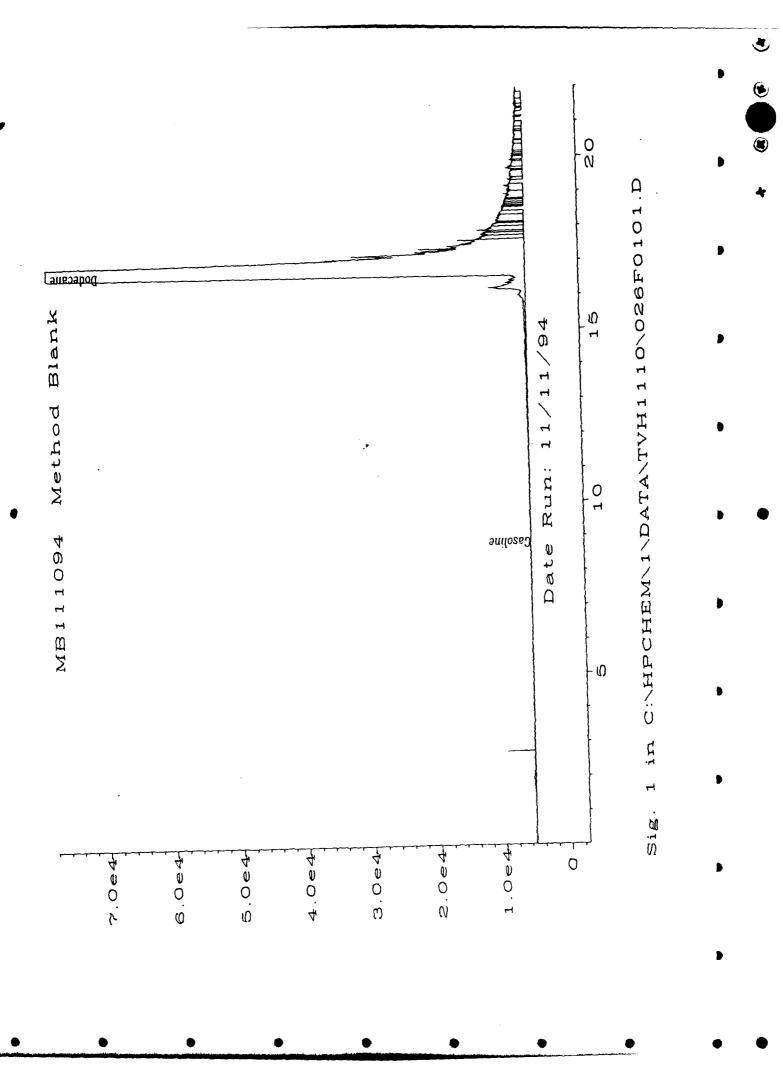
B = TVH found in blank as well as sample (blank data should be compared).

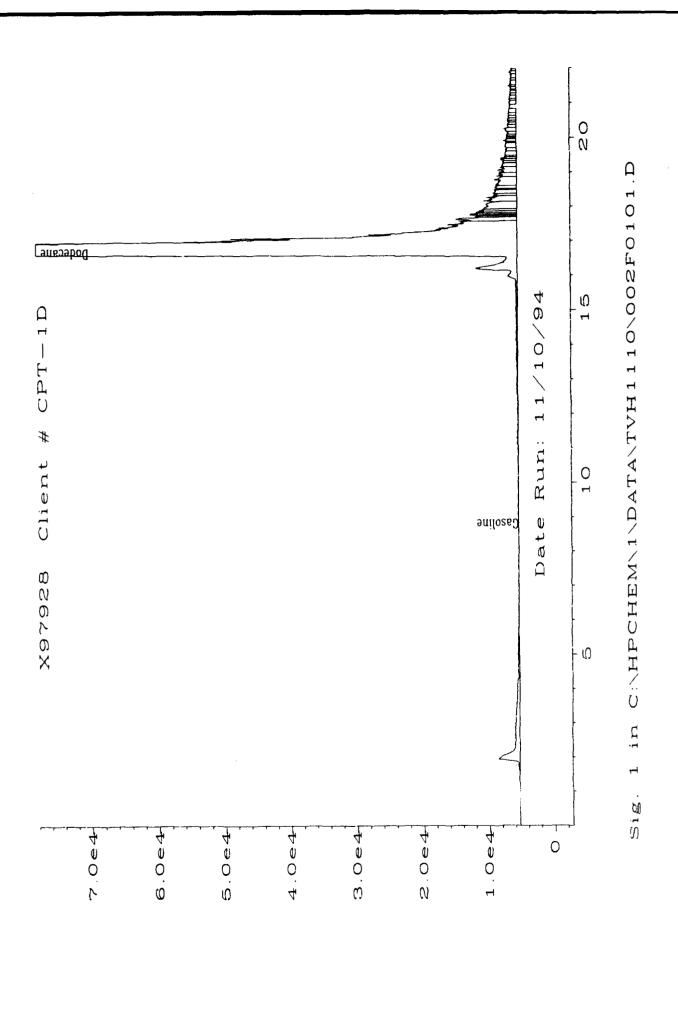
E = Extrapolated value.

MDL = Method Detection Limit

Analyst

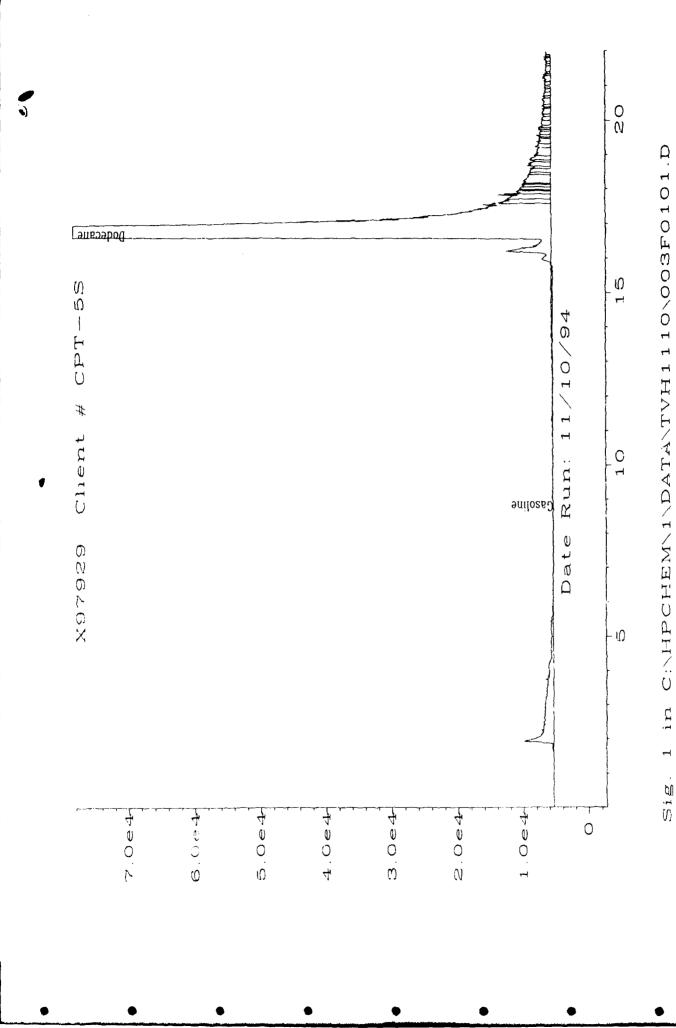
^{• =} Sample and MDL values are reported on a dry weight basis.



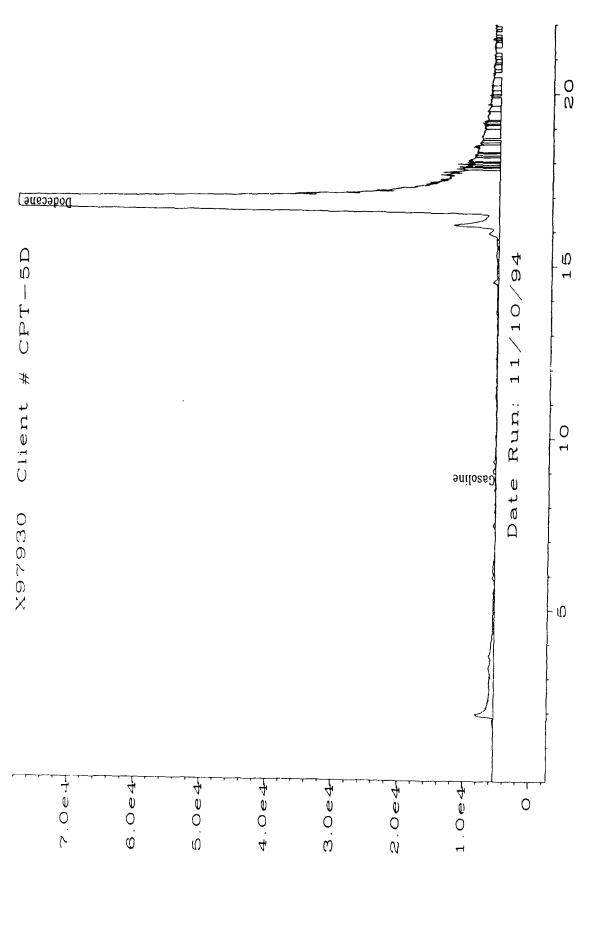


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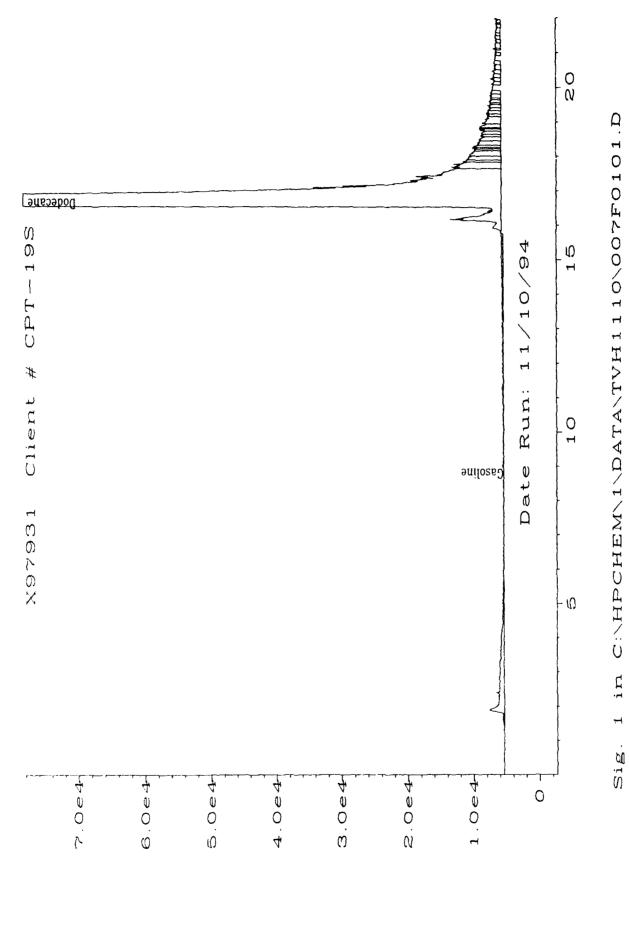
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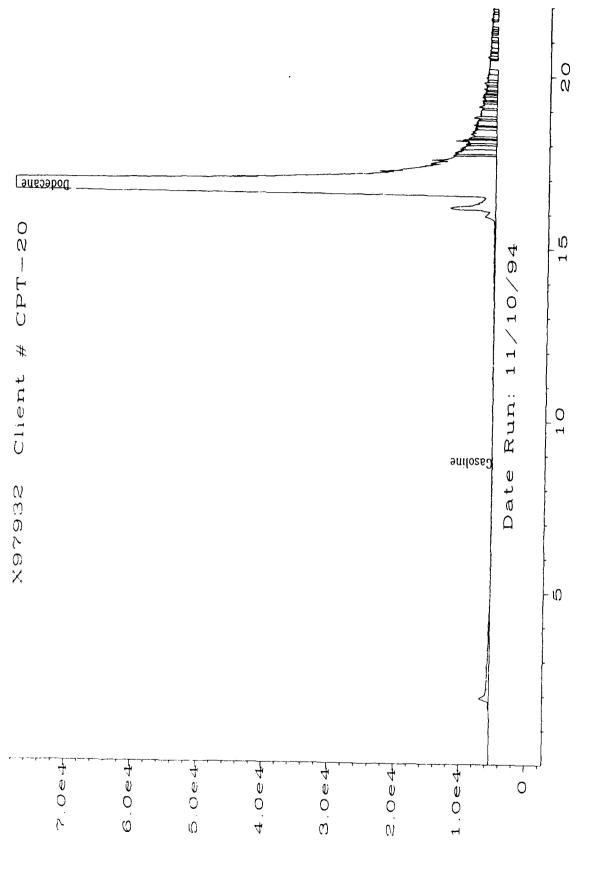
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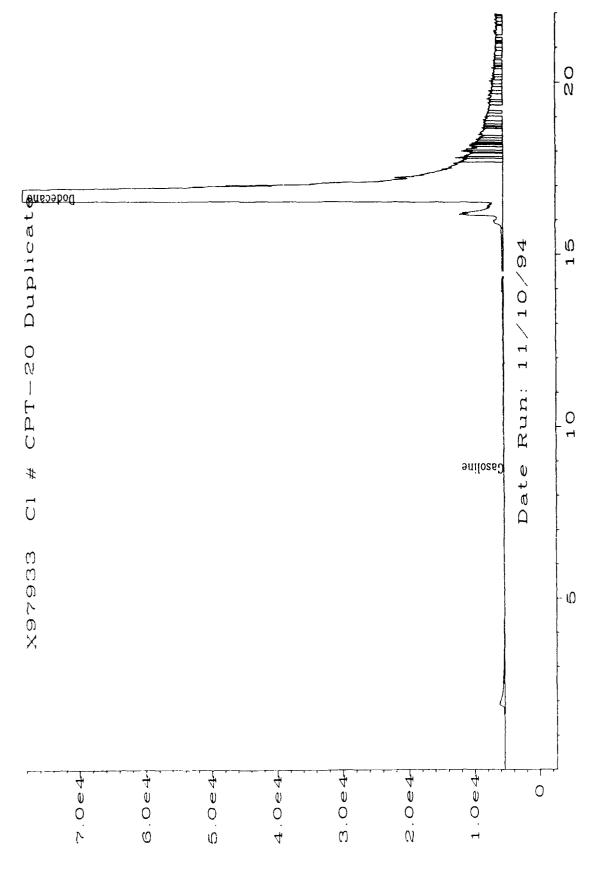
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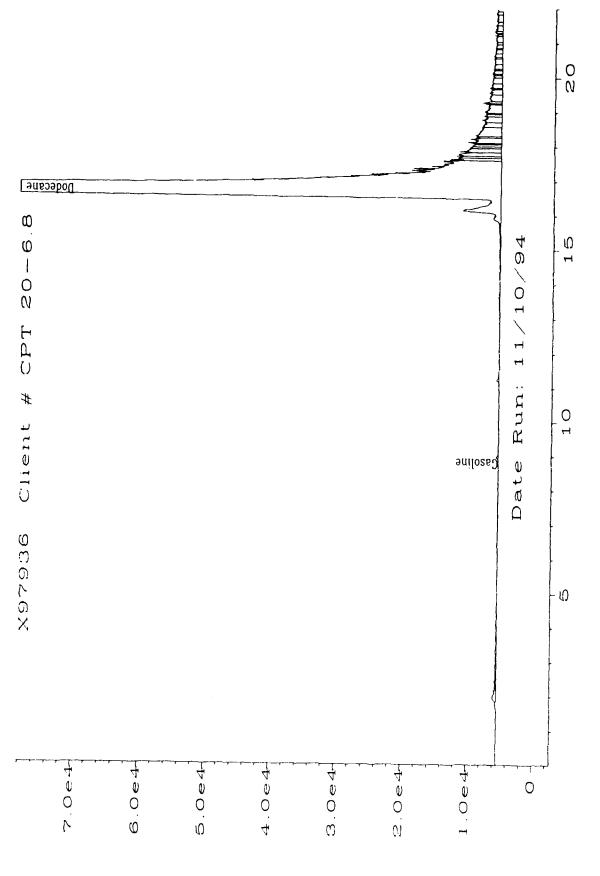
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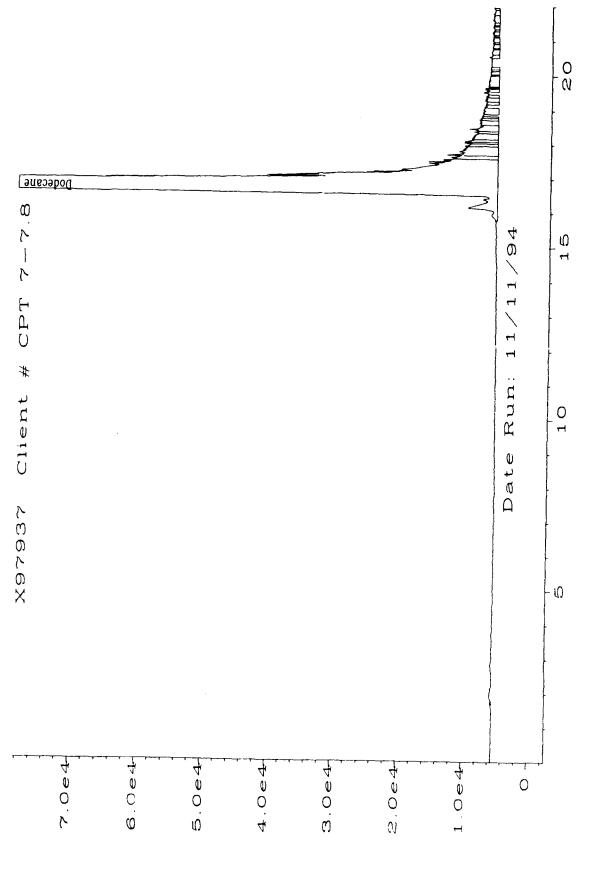
C:\HPCHEM\1\DATA\TVH1110\008F0101.D in Sig



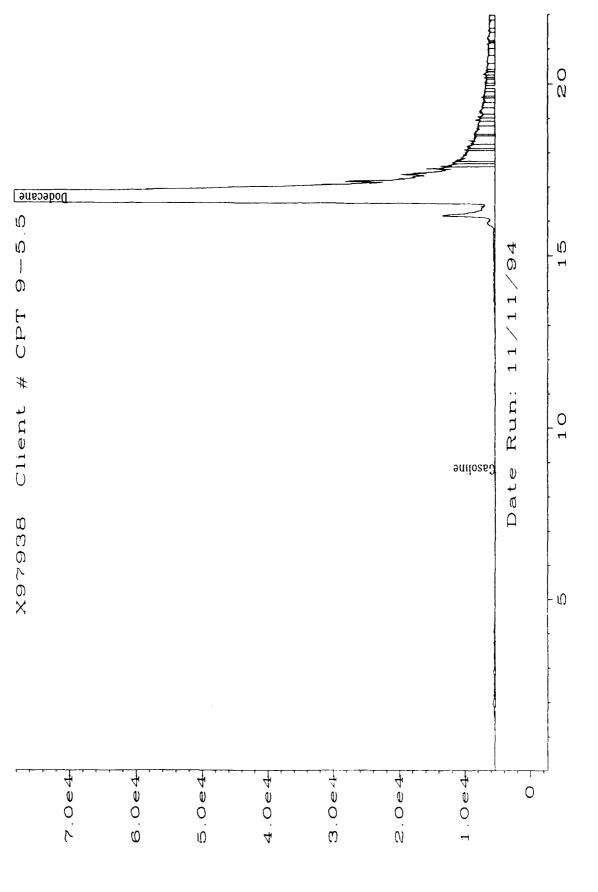
C:\HPCHEM\1\DATA\TVH1110\009F0101.D in Sig



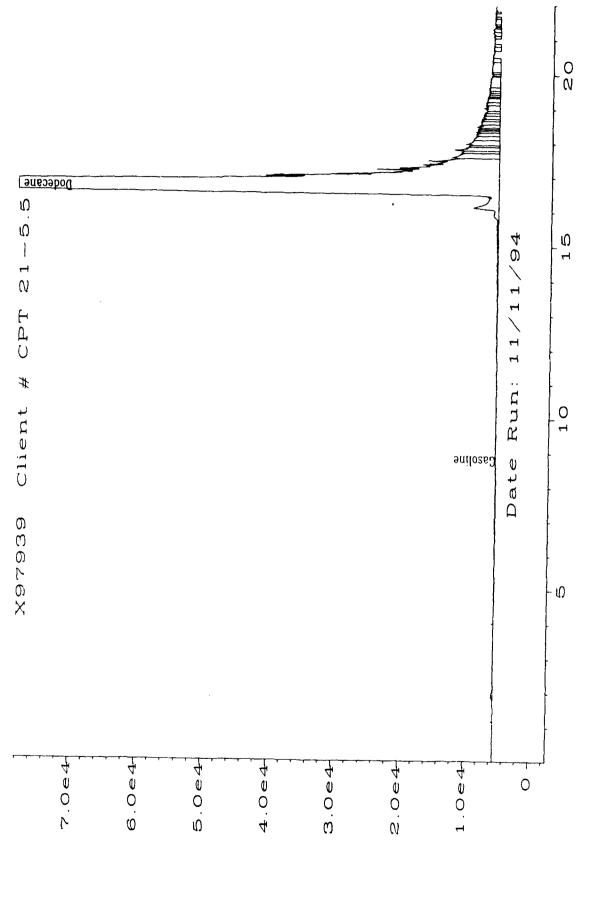
C:\HPCHEM\1\DATA\TVH1110\013F0101.D in Sig.



C:\HPCHEM\1\DATA\TVH1110\014F0101.D ir Sig.



C:\HPCHEM\1\DATA\TVH1110\015F0101.D ira Sig.

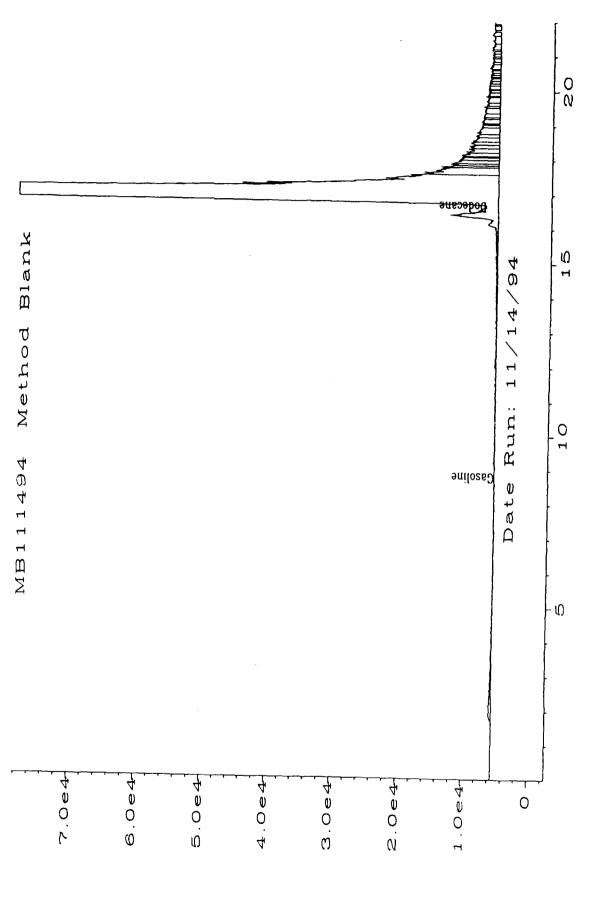


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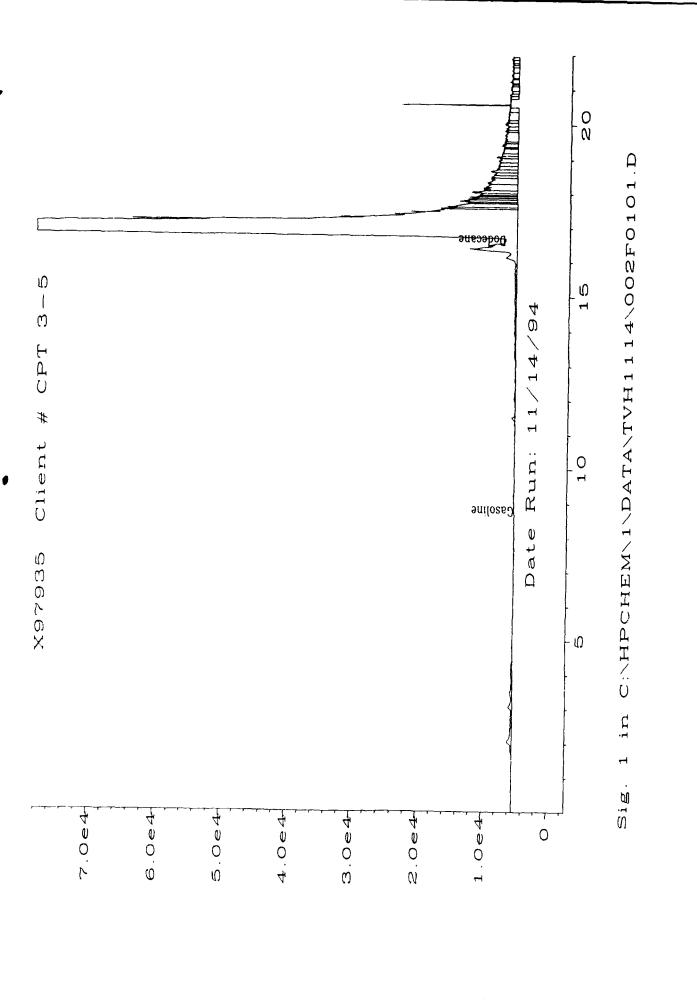
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TOTAL VOLATILE HYDROCARBONS TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.

: CPT-19S

Client Project No.

: 722450.01000

Lab Sample No.

: X97931

Lab Project No.

Madison ANG : 94-4373

Date Sampled
Date Received

: 11/7/94 : 11/9/94

EPA Method No.

: 8015 Mod.

Date Prepared

: 11/10/94

Matrix

: Water

Date Analyzed

: 11/10/94

Method Blank

: MB111094

	Spike	Sample	MS		QC
Compound	Added	Concentration	Concentration	MS	Limits
	(mg/L)	(mg/L)	(mg/L)	%REC	%REC
Gasoline	10	0.2	7.6	74	60-140

	Spike	MSD				C
Compound	Added	Concentration	MS	RPD	Limits	
	(mg/L)	(mg/L)	%REC		RPD	%REC
Gasoline	10	9.4	92	21.7	50	60-140

* =	Values	outside o	f QC	limits.
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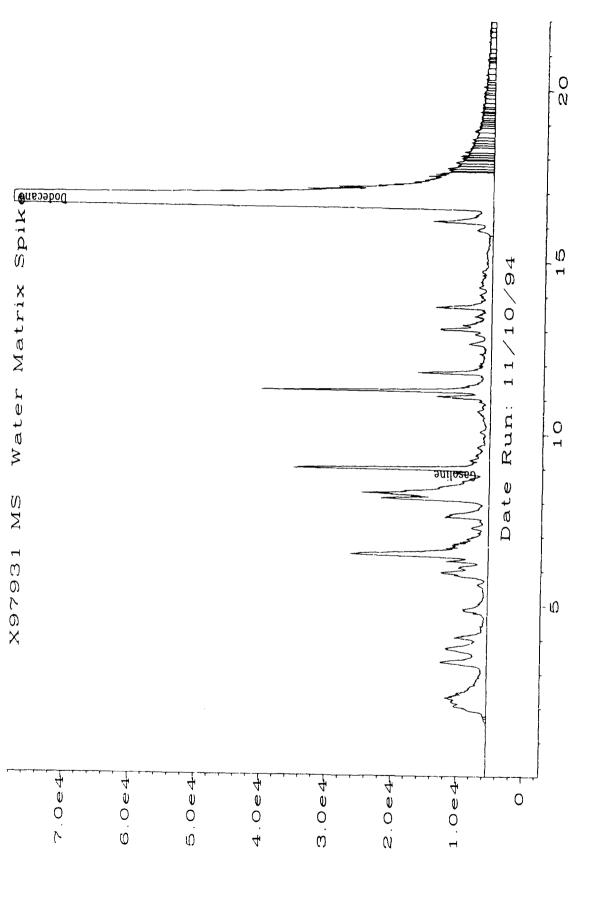
RPD:

0 out of (1) outside limits.

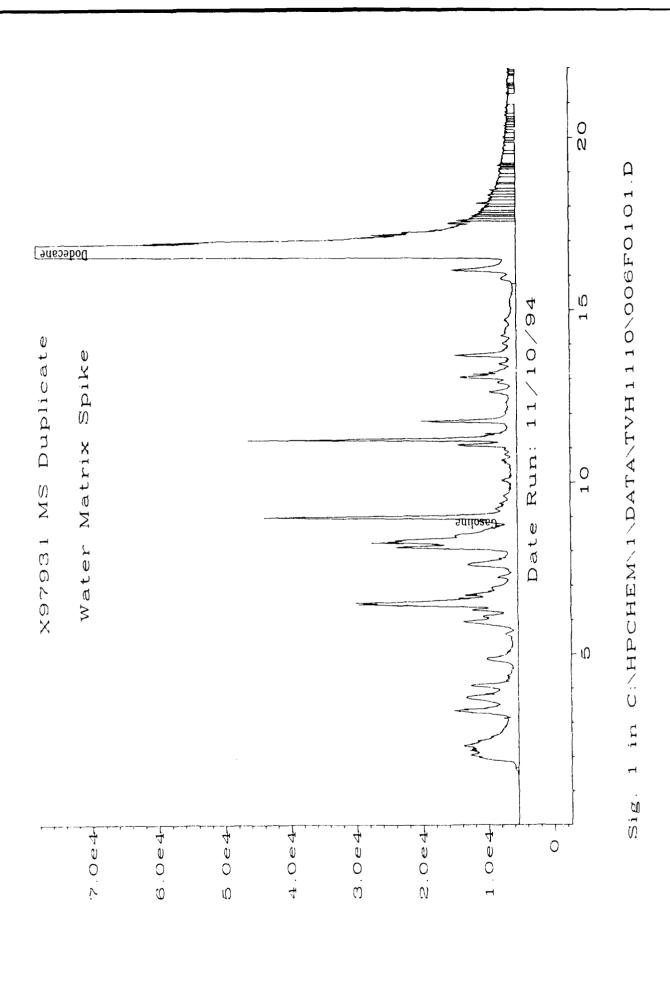
Spike Recovery:

0 out of (2) outside limits.

Comments:



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TOTAL VOLATILE HYDROCARBONS TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.

: CPT 3-5

Client Project No.

: 722450.01000

Lab Sample No.

: X97935

Lab Project No.

Madison ANG : 94-4373

Date Sampled

: 11/7/94

EPA Method No.

: 5030/8015 Mod

Date Received

: 11/9/94

Matrix

: Soil

Date Prepared

: 11/10/94

: MB111094

Date Analyzed

: 11/11/94

Method Blank

	Spike	Sample	MS		ОС
Compound	Added	Concentration	Concentration	MS	Limits
	(mg/L)	(mg/L)	(mg/L)	%REC	%REC
Gasoline	5	0	5.084	101.68	60-140

	Spike	MSD				C
Compound	Added	Concentration	MS	RPD	Li	mits
	(mg/L)	(mg/L)	%REC		RPD	%REC
Gasoline	5	5.278	105.56	3.7	0ن	60-140

*	=	Values	outside	of	ОC	limits.

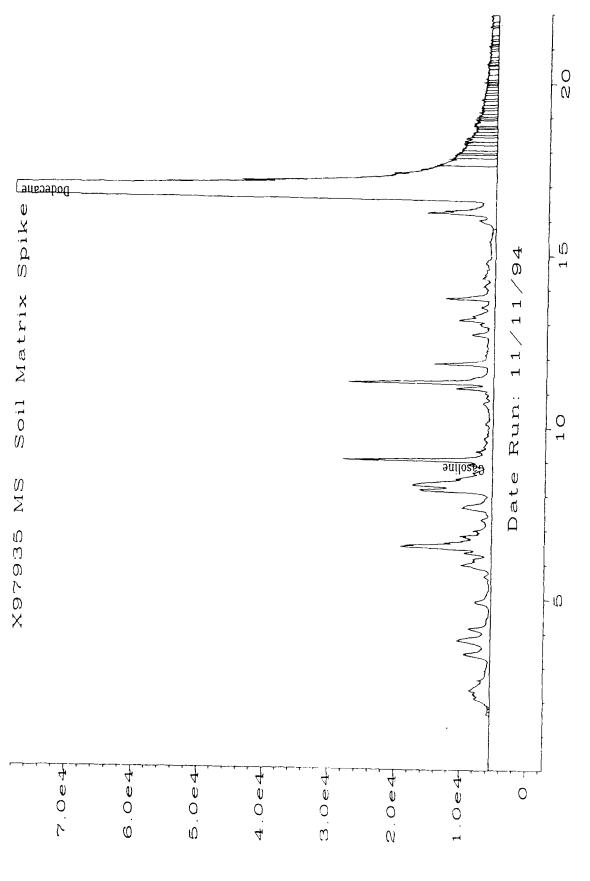
RPD:

out of (1) outside limits.

Spike Recovery:

0 out of (2) outside limits.

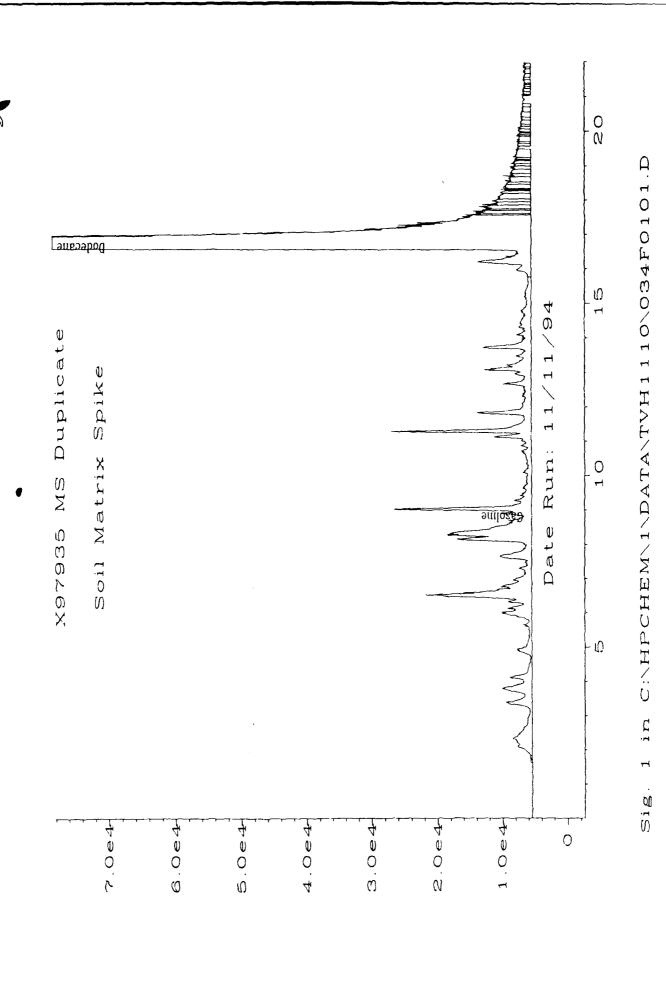
Comments:



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TOTAL VOLATILE HYDROCARBONS (TVH) Laboratory Control Sample (LCS)

LCS Number : LCS111194

: TVH1110

Client Project Number : 722450.01000

Madison ANG

Date Prepared : 11/10/94 Date Analyzed : 11/11/94

Sequence Number

Lab Project Number : 94-4373

Matrix : Water

Method Number : 3500/Mod. 8015

LCS

Compound Name	Theoretical Concentration mg/L	CCS Concentration mg/L	QC Limit mg/L
Gasoline	10	8.485	6.0-14.0

QUALIFIERS

U = TEH analyzed for but not detected.

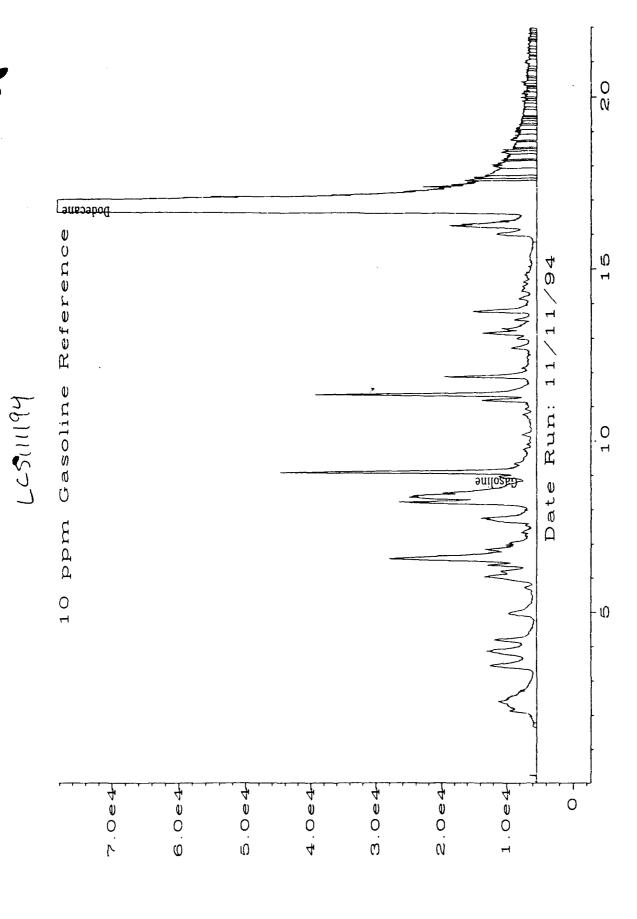
B = TEH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

NA = Not Available.

Analyst

Approved



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TOTAL VOLATILE HYDROCARBONS (TVH) Laboratory Control Sample (LCS)

LCS Number

: LCS111594

Client Project Number

: 722450.01000 Madison ANG

Date Prepared
Date Analyzed

: 11/14/94

Lab Project Number

: 94-4373

Sequence Number

: 11/15/94 : TVH1114

Matrix

: Water

Method Number

: 3500/Mod. 8015

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Compound	Theoretical Concentration mg/L	Concentration	QC Limit
Name		mg/ L	mg/L
Gasoline	5	4.883	3.0-7.0

QUALIFIERS

U = TEH analyzed for but not detected.

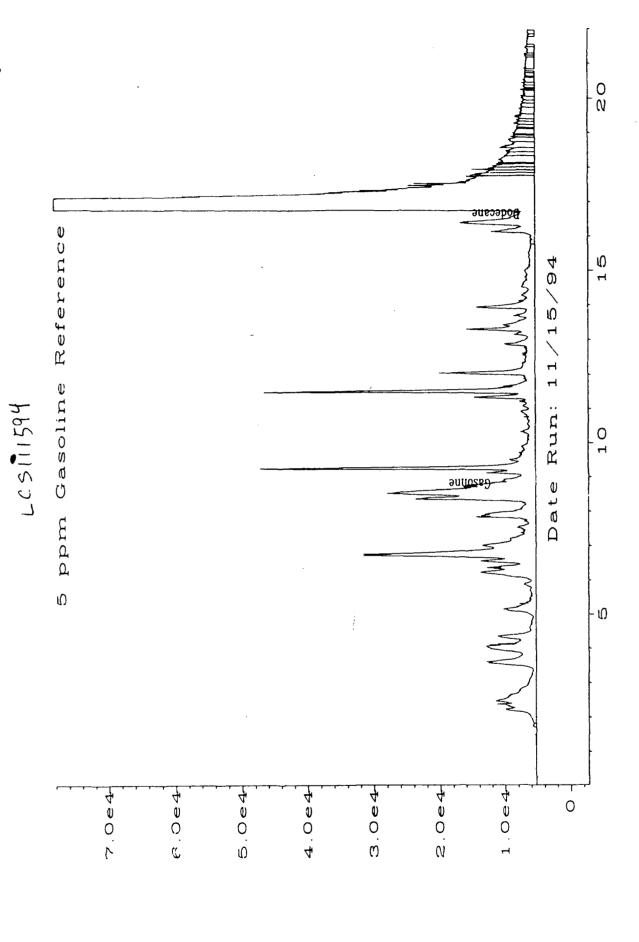
B = TEH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

NA = Not Available.

Analyst

Approved



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November 22, 1994

Ms. Gail Saxton Engineering Science, Inc. 1700 Broadway Suite 900 Denver, CO 80290

Dear Ms. Saxton:

Enclosed is a revised case narrative from EAL project 94-4373. I am also enclosing the re-analyzed result for the trip blank and the MS/MSD re-analysis results.

The RPD results are still out of control. The MS/MSD were originally re-analyzed due to poor surrogate recovery of the MSD. The surrogate recoveries were acceptable upon re-analysis, however, the MS was on the low end of the acceptable range. It is doubtful that any of the data are affected by the unacceptable RPD results.

If you have any questions, do not hesitate to call me.

Sincerely,

Mark J. Mensik Project Manager



CASE NARRATIVE

Evergreen Analytical Projects: 94-4373

Engineering Science, Inc. (ES) Project: Madison ANG

Subcontract Number: 722450.SC02

Sample Receipt

On November 9, 1994 five soil and five groundwater samples were received at Evergreen Analytical Laboratory (EAL) for analysis under the subcontract referenced above. Refer to the EAL Check-in Record for specific information regarding the condition of samples upon receipt at EAL. Refer to the EAL Sample Log Sheet for specific log-in information and cross-reference of EAL and ES sample identifications.

The sampling firm did not sign the chains-of-custody relinquishing the samples to Federal Express.

Missed Holding Times

These samples were originally sampled on September 16, 1994 and received at EAL on September 17, 1994 but were not analyzed within contract required holding times for BTEX/TMB, total volatile hydrocarbons and total extractable hydrocarbons. These samples were subsequently resampled and have been analyzed for the aforementioned analytes under an agreement betweer EAL and ES dated October 31, 1994. This data package contains the analytical results for these samples.

Sample CPT21-5.5 was identified as CPT21-6 on the original group of samples received September 17, 1994. Sample CPT10-5.5 from the original group of samples received September 17, 1994, was not resampled.

BTEX and Trimethylbenzenes (TMB)

TMBs were not requested on the chain-of-custody for the soil samples, however, they were included on the hard copy data reports. Gail Saxton of Engineering Science was informed of this and stated that this would not create a problem and requested that the TMBs remain on the hard copy reports. The TMB results are not included on the disk deliverables.

Sample CPT-19S was spiked. The percent recoveries for the matrix spike sample were all acceptable except for 1,2,4-trimethylbenzene. All percent recoveries for the matrix spike duplicate (MSD) were unacceptable, as were all RPD results. The poor MSD results are most likely due to a bad purge. The surrogate recovery for the MSD was 47%, which is lower than the low control limit. The MS and MSD are being reanalyzed. The results will be forwarded as soon as available. None of the data have been qualified based on the MS/MSD results.

The trip blank that accompanied the cooler containing the soil samples

Page 2 Case Narrative Madison ANG (EAL# 94-4373)

(EAL sample X97940) exhibited low surrogate recovery. The sample is being re-analyzed. The results will be forwarded as soon as available.

Total Extractable Hydrocarbons (TEH)

There was no MSD sample analyzed for the water matrix samples due to insufficient sample volume. The MS result was acceptable.

Total Volatile Hydrocarbons (TVH)

There were no quality control anomalies to report.

Disk Deliverables

The disk deliverables are also included with the hard copy data package.

The results from this data package have been added to the disk deliverable from the first Madison ANG data package.

The total xylenes results on the hard copy and the disk deliverable are reported using two significant figures. The disk deliverable also includes results for m/p-xylene and o-xylene that are not reported on the hard copy. These results are reported using three significant figures in some instances.

A hardcopy of each spreadsheet included on the diskette are included. The name for each file is located in the top left corner on the first page of each spreadsheet printout.

The electronic deliverables are reported on Microsoft Excel version 5.0.

Mark J. Mensik, Project Manager

BTEX Data Report

Client Sample Number	: Trip Blank	Client Project No.	: Madison ANG
Lab Sample Number	: X97940	Lab Project No.	: 94-4373
Date Sampled	: 11/7/94	Dilution Factor	: 1.00
Date Received	: 11/9/94	Method	: 8020
Date Extracted/Prepared	: 11/16/94	Matrix	: Water
Date Analyzed	: 11/16/94	Lab File No.	: BX2111608
Methanol Extract?	: No	Method Blank No.	: MB111694

		Sam	ple	
Compound Name	Cas Number	Concen	tration	PQL
		ug	/L	ug/L
Benzene	71-43-2		U	4
Toluene	108-88-3	0.4	BJ	4
Ethyl Benzene	100-41-4		U	4
Total Xylene (m/p + o)	1330-20-7	0.7	ВЈ	4
1,3,5-trimethylbenzene	108-67-8	0.7	ВЈ	4
1,2,4-trimethylbenzene	95-63-6		U	4
1,2,3-trimethylbenzene	526-73-8		U	4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene QC Reporting Limits : 100% : 77%-116%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

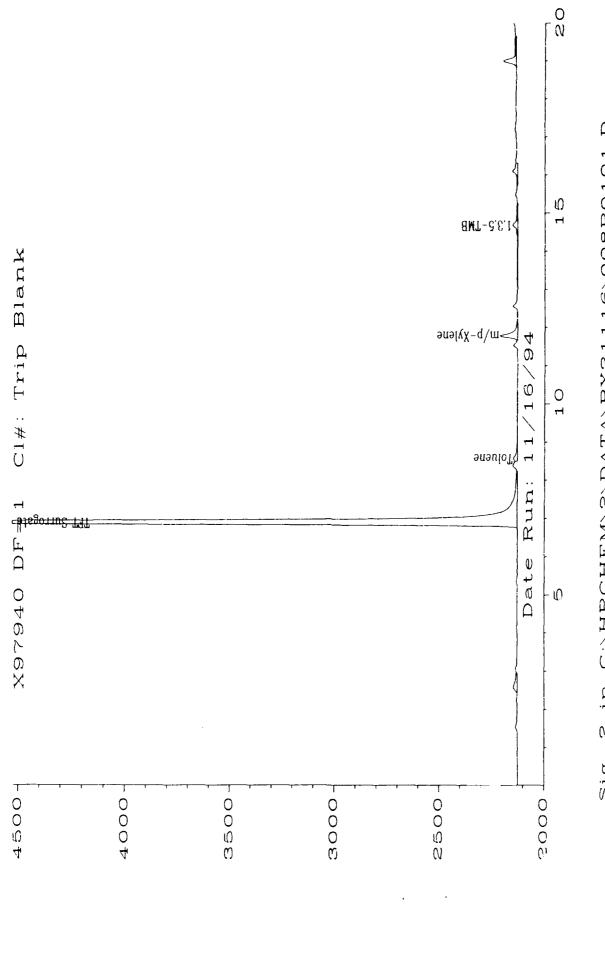
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst

Approved



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BTEX Data Report Method Blank Report

Method Blank Number Date Extracted/Prepared : MB111694

Client Project No.

: Madison ANG

Date Analyzed

: 11/16/94 : 11/16/94

Lab Project No.

: 94-4373

Dilution Factor : 1.00 Method : 8020 Matrix : Water

Lab File No.

: BX2111603

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4
Toluene	108-88-3	0.7 J	4
Ethyl Benzene	100-41-4	υ	4
Total Xylene (m/p + o)	1330-20-7	0.9 J	4
1,3,5-trimethylbenzene	108-67-8	0.6 J	4
1,2,4-trimethylbenzene	95-63-6	U	4
1,2,3-trimethylbenzene	526-73-8	U	4

Note: Total Xylene consist of three isomers, two of which co-elute. The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

110%

QC Reporting Limits : 77%-116%

QUALIFIERS:

E = Extrapolated value

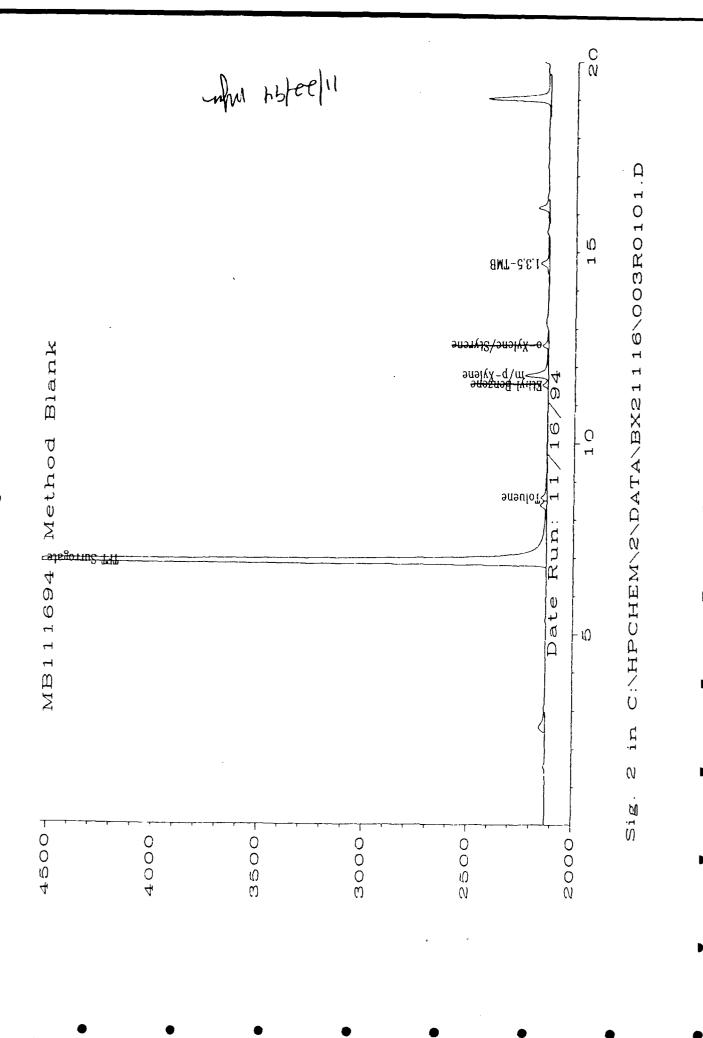
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.



Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

BTEX Water Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.: CPT-19SClient Project No.: Madison ANGLab Sample No.: X97931Lab Project No.: 94-4373Date Sampled: 11/7/94EPA Method No.: 602

Date Received : 11/9/94 Matrix : Water

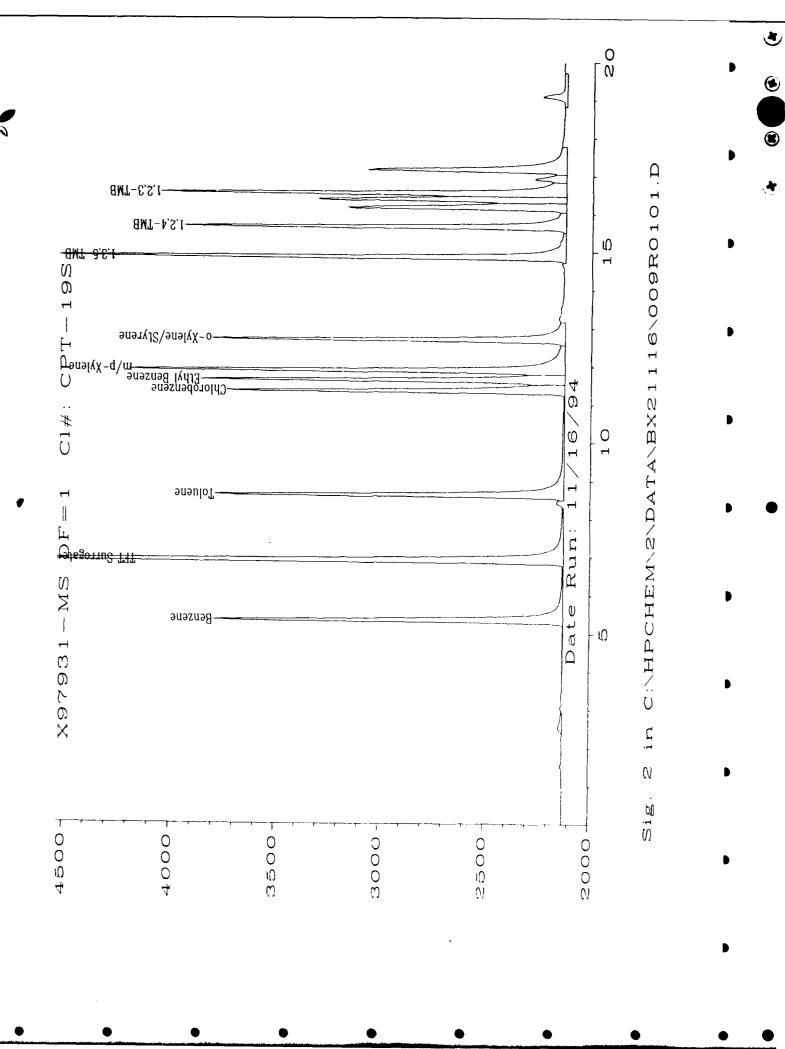
 Date Prepared
 : 11/16/94
 Lab File Number(s)
 : BX1111609,10

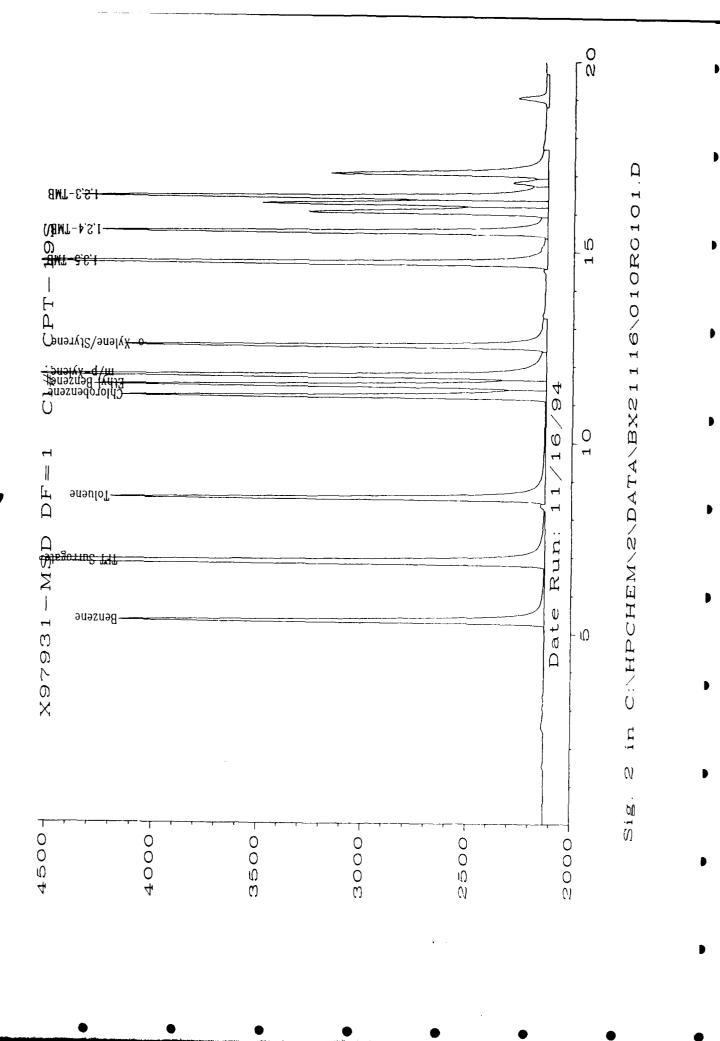
 Date Analyzed
 : 11/16/94
 Method Blank
 : MB111694

	Spike	Sample	MS		ac
Compound	Added	Concentration	Concentration	MS	Limits
	(ug/L)	(ug/L)	(ug/L)	%REC	%REC
Benzene	20	0	17	85	65-121
Toluene	20	0.6	17.2	83	69-117
Ethyl Benzene	20	0.7	16.7	80	68-118
m/p-Xylene	20	2.5	16.2	68.5	66-116
o-Xylene	20	1.8	16.6	74	73-117
1,3,5-TMB	20	3.3	16.7	67	65-121
1,2,4-TMB	20	7.7	16.1	42*	65-121
1,2,3-TMB	20	2.1	16.4	71.5	65-121

	Spike	MSD				ac
Compound	Added	Concentration	MS	RPD	l L	imits
	(ug/L)	(ug/L)	%REC		RPD	%REC
Benzene	20	19.8	99	15.2	17.4	65-121
Toluene	20	20	97	15.6	15.8	69-117
Ethyl Benzene	20	19.8	95.5	17.7	* 11.9	68-118
m/p-Xylene	20	19.5	85	21.5	* 15.4	66-116
o-Xylene	20	20.1	91.5	21.1	* 13.2	73-117
1,3,5-TMB	20	19.6	81.5	19.5	* 17.4	65-121
1,2,4-TMB	20	19.3	58*	32.0	* 17.4	65-121
1,2,3-TMB	20	19.8	88.5	21.3	* 17.4	65-121

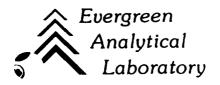
* = Values outsid	e of QC limi	ts.	
RPD:	6	out of (8) outside limit	s.
Spike Recovery:	2	out of (16) outside lim	its.
Comments:	CJC		





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June 25, 1996

MR DAVE MOUTOUX PARSONS ENGINEERING SCIENCE INC 1700 BROADWAY SUITE 900 DENVER, CO 80290

> Work Order: 96-1829, 96-1849 Client Project: MADISON ANGB 729691.09110

Dear Mr. Moutoux:

Enclosed are the analytical results for the samples shown in the Work Order Summary. The enclosed data have been reviewed for quality assurance. If you have any questions concerning the reported information, please contact Patty McClellan, Program Manager.

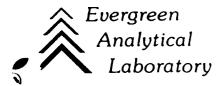
Upon completion of all required analyses and acceptance of the data report by PES (within 3 weeks of final data package deliver), EAL will be responsible for proper disposal of any remaining samples, sample containers, shipping containers, and Sytrofoam or plastic packing materails in accordance with sound environmental practices, based on the sample analytical results. However, EAL will give prior notification to and receive the approval of PES before disposing of any remaining samples. EAL will maintain proper records of waste disposal methods and disposal methods and disposal company contracts on file for inspection.

The invoice for this work will be mailed to your Accounts Payable department shortly.

Thank you for using the services of Evergreen Analytical.

Sincerely,

Jack Barney President



CASE NARRATIVE

Evergreen Analytical Laboratory (EAL) Projects: 96-1829, 96-1849

Parsons Engineering Science, Inc. (PES) Project: Madison ANGB 729691.09110

Sample Receipt

Groundwater samples were received on June 5 and 6, 1996 at EAL for analysis under subcontract 722450.SC02. Refer to the EAL Check-in Record for specific information regarding the condition of samples upon receipt. Refer to the EAL Work Order Summary for specific log-in information and cross-reference of EAL and PES sample identifications.

Data Package

All data are reported in one comprehensive package that is segregated based upon EAL project number. Each EAL project represents a group of samples received on a given day. The EAL Sample Work Order summarizes the samples represented in each EAL project.

A separate invoice for each EAL project number will be generated.

Quality assurance data may overlap from one EAL project to another. All required matrix spike/matrix spike duplicate (MS/MSD) and laboratory control samples (LCS) were analyzed when required and also are included in the data package.

BTEX, Method SW8020/Total Volatile Hydrocarbons TVH, Method SW8015M All samples were analyzed for BTEX/TVH within holding time.

Several samples were analyzed at dilutions ranging from a dilution factor or 10 to 100 due to elevated levels of contaminants of interest. The reporting limits have been adjusted accordingly.

There are no quality control anomalies to report.

Case Narrative Parsons Engineering Science, Inc. Page Two

Total Extractable Petroleum Hydrocarbons TEPH/JP4, Method SW8015M All samples submitted for TEPH analysis were analyzed within holding time.

Please note that the surrogate used for these samples was JP4 rather than the JP5 surrogate traditionally used for samples under this contract.

Sample MW-8 was analyzed at a dilution factor of 2 due to elevated levels of TEPH present. The reporting limit was increased to reflect the dilution.

There were no quality control anomalies to report.

Methane, Method RSKSOP175M

All samples were analyzed for Methane within holding time.

Several samples were analyzed at dilutions ranging from a dilution factor of 50 to 100 due to the presence of methane. The reporting limits have been increased accordingly.

There are no quality control anomalies to report.

General Chemistry

There were no quality control anomalies to report for Anions by Method 300.0.

EAL does not have the capability to analyze for Mn^{2+} as requested. The request was disregarded per instructions from Dave Moutoux on June 5, 1996.

<u>Disk Deliverables</u>

The disk deliverables are included with the hard copy data package. MS/MSD and laboratory duplicate samples are not included on the disk. Please note that blank spaces in the laboratory detection limit and/or practical quantitation limit (PQL) column indicate that there is no detection limit or PQL for that analyte.

A hard copy of each spreadsheet from the diskette is included. The name for each spreadsheet is located in the top left corner of the first page of each printout.

Patricia A. McClellan, Program Manager 6/24/96

Evergreen Analytical, Inc.

WORK ORDER Summary

Report To: Dave Moutoux

Parsons Engineering Science 1700 Broadway Suite 900 Denver, CO 80290

Comments:

05-Jun-96

Client Project ID: Madison ANGB 729691.09110

Phone: (303) **831-8**100 **FAX:** (303) **831-8**208

96-1829-02H CPT-1D ANIONS by ION CHROMATOGRAPHY Water D6 04-Jun-96 05-Jun-96 19-Jun-96 06-Jun-96 96-1829-02H CPT-3D ANIONS by ION CHROMATOGRAPHY 19-Jun-96 10-Jun-96 06-Jun-96 96-1829-02H CPT-3D ANIONS by ION CHROMATOGRAPHY 19-Jun-96 06-Jun-96 96-1829-03H CPT-3D ANIONS by ION CHROMATOGRAPHY 19-Jun-96 06-Jun-96 96-1829-03H CPT-3D ANIONS by ION CHROMATOGRAPHY 19-Jun-96 06-Jun-96 96-1829-05H MW-12 ANIONS by ION CHROMATOGRAPHY 19-Jun-96 06-Jun-96 96-1829-05H CPT-3D ANIONS by ION CHROMATOGRAPHY 19-Jun-96 06-Jun-96 96-1829-05H CPT-3D BIEX + TYPH (Parsons List) 10-Jun-96 06-Jun-96 96-1829-07A </th <th>Sample ID</th> <th>Client Sample ID</th> <th>Analysis</th> <th>*</th> <th>Matrix</th> <th>ž</th> <th>Collection</th> <th>Received</th> <th>Due</th> <th>HT</th>	Sample ID	Client Sample ID	Analysis	*	Matrix	ž	Collection	Received	Due	HT
CPT-3D ANIONS by ION CHROMATOGRAPHY 19-Jun-96 CPT-3S ANIONS by ION CHROMATOGRAPHY 19-Jun-96 CPT-4D CINOZANO3SO4 19-Jun-96 CPT-4D CINOZANO3SO4 19-Jun-96 ANIONS by ION CHROMATOGRAPHY 19-Jun-96 MW-13 ANIONS by ION CHROMATOGRAPHY 19-Jun-96 CPT-3OS ANIONS by ION CHROMATOGRAPHY 19-Jun-96 CPT-3OS CPT-3OS ANIONS by ION CHROMATOGRAPHY 19-Jun-96 CPT-3OS ANIONS by ION CHROMATOGRAPHY 19-Jun-96 19-Jun-96 CPT-3OS ANIONS by ION CHROMATOGRAPHY 19-Jun-96 19-Jun-96 CPT-1SS ANIONS by ION CHROMATOGRAPHY 19-Jun-96 19-Jun-96 CPT-1D BTEX. + TVPH (Parsons List) 10-Jun-96 10-Jun-96 CPT-1S BTEX. + TVPH (Parsons List) 10-Jun-96 10-Jun-96 CPT-1SS BTEX. + TVPH (Parsons List) 10-Jun-96 10-Jun-96 CPT-1SS BTEX. + TVPH (Parsons List) 04-Jun-96 10-Jun-96 CPT-1DMS BTEX. + TVPH (Parsons List) 04-Jun-96 10-Jun-96	96-1829-01Н	CPT-1D	ANIONS by ION CHROMATOGRAPHY CI,NO2,NO3,SO4		Water	8	04-Jun-96	96-mr-90	19-Jun-96	96-Jun-90
CPT-5S ANIONS by ION CHROMATOGRAPHY 19-Jun-96 CPT-4D CIANOZAO3,SO4 19-Jun-96 CPT-4D CIANOZAO3,SO4 19-Jun-96 MW-13 CIANOZAO3,SO4 19-Jun-96 19-Jun-96 MW-13 CIANOZAO3,SO4 PON CHROMATOGRAPHY 19-Jun-96 CPT-20S ANIONS by ION CHROMATOGRAPHY 19-Jun-96 19-Jun-96 CPT-10S CIANOZAO3,SO4 ANIONS by ION CHROMATOGRAPHY 19-Jun-96 19-Jun-96 CPT-10S CPT-10S BIEX + TVPH (Parsons List) 2 10-Jun-96 10-Jun-96 CPT-3D BIEX + TVPH (Parsons List) 2 10-Jun-96 10-Jun-96 CPT-3D BIEX + TVPH (Parsons List) 10-Jun-96 10-Jun-96 10-Jun-96 CPT-3D BIEX + TVPH (Parsons List) 04-Jun-96 10-Jun-96 CPT-10S BIEX + TVPH (Parsons List) 04-Jun-96 10-Jun-96 CPT-10S BIEX + TVPH (Parsons List) 04-Jun-96 10-Jun-96 CPT-10NS BIEX + TVPH (Parsons List) 04-Jun-96 10-Jun-96 CPT-10NS BIEX + TVPH (Pa	96-1829-02H	CPT-5D	ANIONS by ION CHROMATOGRAPHY CI,NO2,NO3,SO4						19-Jun-96	96-Jun-90
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MW-13 ANIONS by ION CHROMATOGRAPHY 19-Jun-96 CINOZ MO3.804 ANIONS by ION CHROMATOGRAPHY 19-Jun-96 CPT-205 ANIONS by ION CHROMATOGRAPHY 19-Jun-96 CPT-195 ANIONS by ION CHROMATOGRAPHY 19-Jun-96 CPT-105 ANIONS by ION CHROMATOGRAPHY 19-Jun-96 CPT-107 BTEX + TVPH (Parsons List) 2 10-Jun-96 CPT-3D BTEX + TVPH (Parsons List) 10-Jun-96 10-Jun-96 CPT-10S BTEX + TVPH (Parsons List) 04-Jun-96 10-Jun-96 CPT-10S BTEX + TVPH (Parsons List) 04-Jun-96 10-Jun-96 CPT-10S BTEX + TVPH (Parsons List) 04-Jun-96 10-Jun-96 CPT-10MS BTEX + TVPH (Parsons List) 04-Jun-96 10-Jun-96 CPT-1DMS BTEX + TVPH (Parsons List) 04-Jun-96 10-Jun-96 CPT-1DMS <t< td=""><td>96-1829-04H</td><td>CPT-4D</td><td>ANIONS by ION CHROMATOGRAPHY CI,NO2,NO3,SO4</td><td></td><td></td><td></td><td></td><td></td><td>19-Jun-96</td><td>96-Jun-90</td></t<>	96-1829-04H	CPT-4D	ANIONS by ION CHROMATOGRAPHY CI,NO2,NO3,SO4						19-Jun-96	96-Jun-90
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CPT-5D BTEX + TVPH (Parsons List) 10-Jun-96 CPT-5S BTEX + TVPH (Parsons List) 10-Jun-96 CPT-4D BTEX + TVPH (Parsons List) 10-Jun-96 MW-13 BTEX + TVPH (Parsons List) 10-Jun-96 CPT-20S BTEX + TVPH (Parsons List) 10-Jun-96 CPT-10S BTEX + TVPH (Parsons List) 10-Jun-96 CPT-10S BTEX + TVPH (Parsons List) 04-Jun-96 CPT-10MSD BTEX + TVPH (Parsons List) 04-Jun-96 CPT-1DMSD BTEX + TVPH (Parsons List) 04-Jun-96 CPT-1DMSD Methane 19-Jun-96 CPT-1D Methane 19-Jun-96	96-1829-J1A	CPT-1D	BTEX + TVPH (Parsons List)			2			10-Jun-96	18-Jun-96
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MW-12 BTEX + TVPH (Parsons List) 10-Jun-96 CPT-20S BTEX + TVPH (Parsons List) 10-Jun-96 CPT-19S BTEX + TVPH (Parsons List) 10-Jun-96 Trip Blank BTEX + TVPH (Parsons List) 04-Jun-96 10-Jun-96 CPT-1DMSD BTEX + TVPH (Parsons List) 04-Jun-96 10-Jun-96 CPT-1DMSD Methane 19-Jun-96 CPT-1D Methane 19-Jun-96 CPT-SD Methane 19-Jun-96	96-1829-05A	MW-13	4				:		10-Jun-96	18-Jun-96
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CPT-19S BTEX + TVPH (Parsons List) 10-Jun-96 Trip Blank BTEX + TVPH (Parsons List) 04-Jun-96 10-Jun-96 CPT-1DMSD BTEX + TVPH (Parsons List) 04-Jun-96 10-Jun-96 CPT-1D Methane 19-Jun-96 CPT-1D Methane 19-Jun-96 CPT-SD Methane 19-Jun-96	96-1829-07A	CPT-20S	BTEX + TVPH (Parsons List)						10-Jun-96	18-Jun-96
Trip Blank BTEX + TVPH (Parsons List) 10-Jun-96 CPT-1DMS BTEX + TVPH (Parsons List) 04-Jun-96 10-Jun-96 CPT-1DMSD BTEX + TVPH (Parsons List) 10-Jun-96 10-Jun-96 CPT-1D Methane 19-Jun-96 19-Jun-96 CPT-SD Methane 19-Jun-96	96-1829-08A	CPT-19S	. 1						10-Jun-96	18-Jun-96
CPT-1DMS BTEX + TVPH (Parsons List) 04-Jun-96 10-Jun-96 CPT-1DMSD BTEX + TVPH (Parsons List) 10-Jun-96 CPT-1D Methane 19-Jun-96 CPT-5D Methane 19-Jun-96	96-1829-09A	Trip Blank	BTEX + TVPH (Parsons List)						10-Jun-96	
CPT-1DMSD BTEX + TVPH (Parsons List) 10-Jun-96 CPT-1D Methane 19-Jun-96 CPT-5D Methane 19-Jun-96	96-1829-10A	CPT-1DMS	BTEX + TVPH (Parsons List)				04-Jun-96		10-Jun-96	18-Jun-96
CPT-1D Methane 19-Jun-96 CPT-5D Methane 19-Jun-96	96-1829-10C	CPT-1DMSD	!						10-Jun-96	18-Jun-96
CPT-5D Methane 19-Jun-96	96-1829-01E	CPT-1D	Methane						19-Jun-96	18-Jun-96
	96-1829-02E	CPT-5D	Methane						19-Jun-96	18-Jun-96

^{# =} Special list. See sample comments or test information. HT = Holding Time expiration date.





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Evergreen Analytical, Inc.

WORK ORDER Summary

Report To: Dave Moutoux

Parsons Engineering Science 1700 Broadway Suite 900 Denver, CO 80290

05-Jun-96

Client Project ID: Madison ANGB 729691.09110

Phone: (303) 831-8100 **FAX:** (303) 831-8208

Comments:

Sample ID	Client Sample ID	Analysis	*	Matrix	ž	Loc Collection	Received	Due	нт
96-1829-03E	CPT-5S	Methane		Water	7	04-Jun-96	05-Jun-96	19-Jun-96 18-Jun-96	18-Jun-96
96-1829-04E	CPT-4D	Methane						19-Jun-96	19-Jun-96 18-Jun-96
96-1829-05E	MW-13	Methane						19-Jun-96 18-Jun-96	18-Jun-96
96-1829-06E	MW-12	Methane						96-mf-81 96-mf-61	18-Jun-96
96-1829-07E	CPT-20S	Methane						19-Jun-96 18-Jun-96	18-Jun-96
96-1829-08E	CPT-19S	Methane						96-mr-8i 96-mr-96	18-Jun-96
96-1829-061	MW-12	TEPH (JP-4)			26			10-Jun-96 18-Jun-96	18-Jun-96
96-1829-08J	CPT-19S	TEPH (JP-4)						10-Jun-96 18-Jun-96	18-Jun-96
96-1829-041	CPT-4D	TOTAL ALKALINITY						19-Jun-96	9-Jun-96 18-Jun-96
96-1829-051	MW-13	TOTAL ALKALINITY						96-ml-81 96-ml-91	18-Jun-96
180-6781-96	CPT-19S	TOTAL ALKALINITY						19-Jun-96 18-Jun-96	18-Jun-96

*

11.13 (2)11 Date/Time C STD UST (3 day) Container Size 40%, 125 ZSOP, TEX EAL use only
Do not write
in shaded area EAL Sample No. 1255 July Custodian JAW CLIENT CONTACT (pint) 171/2 HOUTO) 6/5/1 / Yest (15)/1 Location o7, 08 A-J ☐ Other (Specify) 07 A-H 104-D 65A-L 06 A-I CJ STD (2 wks) 2-440 ロンナーエ DIATH *expedited turnaround subject to additional fee 03A-H PO.* 09A Received by TURNAROUND REQUIRED. ્રિ ક્ 4 Date/Time PROJECT I.D. EAL. QUOTE # (£77'1'M Circle & list metals below)

McHand 411/11/20C ANALYSIS REQUESTED 4 Total Metals DW / 4PDES (circle & list metals below) TEPH 8015mod. (Diesel). 4036 Youngfield St. Wheat Ridge, Colorado 80033 in them 中 $\binom{z}{2}$ Evergreen Analytical Inc. ţ (303) 425-6021 FAX (303) 425-6854 (800) 845-7400 FAX RESULTS Y 8020/602 (circle)/MTBE (circle) MUNICULAR gra. OU SENICANIE Marton 6/5/46 Herbicides 8150/515 (CITCIE) 8080/608/508 (circle) 6A 1900 **(((** FAX # 303 - 831 -8208 VOA/BNA/Pest/Herb/Metalov MAUT Received by (Signature) 34. J. C. C. MATRIX (circle) Soil / Solid Water-Dnnking/Discharge/Ground No of Containers 14(C) <u>ا</u> 12 to another TIME 1867 144 1Pr. ZIP Evergreen Analytical Cooler No. 1012-11 SAMPLED 100 14/96 12 616 ADDRESS 120 BRECHIRE 12 F.C. PHONE 323 831-8102 lears retiren coetes Please PRIN all information: COMPANY TO BY CITY LENUEL STATE tomper Representative Signatures IDENTIFICATION अंद्रम् SAMPLE V (2) 1 Sampler Name: Chints Scotic (PT-5D CLIENT (1) -1(d) 7-17-55 4-100 51-W11 MW-12 1 2 1 2 2 2 2 C Instructions # 1× 1× (signature) C ä

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Evergreen Analytical Sample Receipt/Cl	
Date & Time Rec'd: 659 0930 Shipped V	Via: Fed X 993179795 Airbill # if applicable)
Client: Parsons ts	Airbill # if applicable)
Client Project ID(s): Madison ANGB	
, · · · · ·	Cocler(s): Y
Cocler# (LT	
Ice packs Ø N Y N Y N Y	Y Y Y
Temperature °C 8 · 13	
	y N N/A
 Custody seal(s) present: Seals on cooler intact Seals on bottle intact 	
2. Chain of Custody present:	<u> </u>
3. Samples Radioactive: (Comment on COC if > 0.5 mar/h)	
4. Containers broken or leaking: (Comment on COC IF Y)	<u>×</u>
5. Containers labeled:	<u> </u>
6. COC agrees w/ bottles received: (Comment on COC (N)	\(\)
7. COC agrees W/ labels: (Comment on COC (N)	<u> </u>
8. Headspace in vials-waters only: (Communication COCATY)	
9. VOA samples preserved:	<u>×</u> — —
<pre>10. pH measured on metals, cyanide or phenolics List discrepancies *Non-EAL provided containers only, water sample</pre>	
11. Metal samples present:	
Total , Dissolved , TCLP	
D or PD to be filtered: T,TR,D,PD to be Preserved:	
12. Short holding times: NOW NO3	
13. Multi-phase sample(s) present:	
14. COC signed w/ date/time:	
Comments:	
(Additional comments on back)	1/5/91
Custodian Signature/Date:	6/2/1/6

Methods 602/8020 and 5030/8015 Modified Data Report Method Blank Report

Method Blank Number

: MB060596-W

Client Project Number

Madison ANGB

Date Prepared Dilution Factor

: 6/5/96

: 1.0

Lab Work Order

96-1829

Matrix

WATER

Lab File Number

TVBX0605003

		Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6/5/96	U	0.1	mg/L
Benzene	71-43-2	6/5/96	U	0.4	ug/L
Toluene	108-88-3	6/5/96	U	0.4	ug/L
Chlorobenzene	108-90-7	6/5/96	U	0.4	ug/L
Ethyl Benzene	100-41-4	6/5/96	U	0.4	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/5/96	U	0.4	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/5/96	U	0.4	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/5/96	U	0.4	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/5/96	U	0.4	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/5/96	U	0.5	ug/L
FID Surrogate Recovery:		100%		70%-130%	(Limits)
●ID Surrogate Recovery:	WH	105%		70%-128%	(Limits)

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

Comments:		
	_	

QUALIFIERS and DEFINITIONS:

E = Extrapolated value. Value exceeds calibration range.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

PID = Photoionization detector.

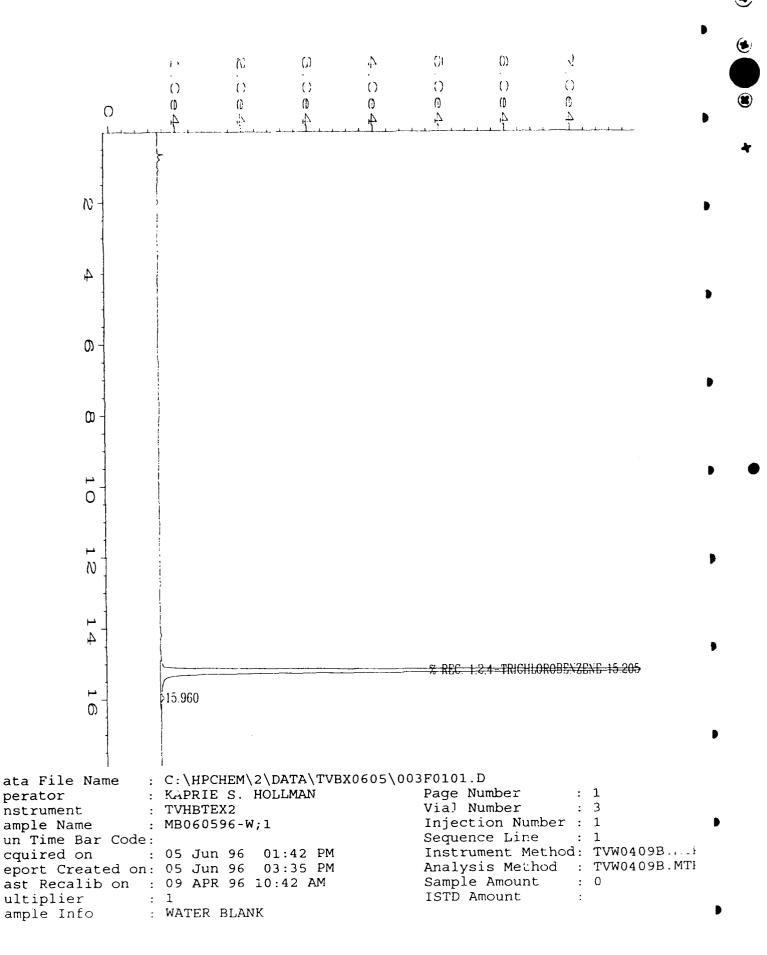
FID = Flame ionization detector.

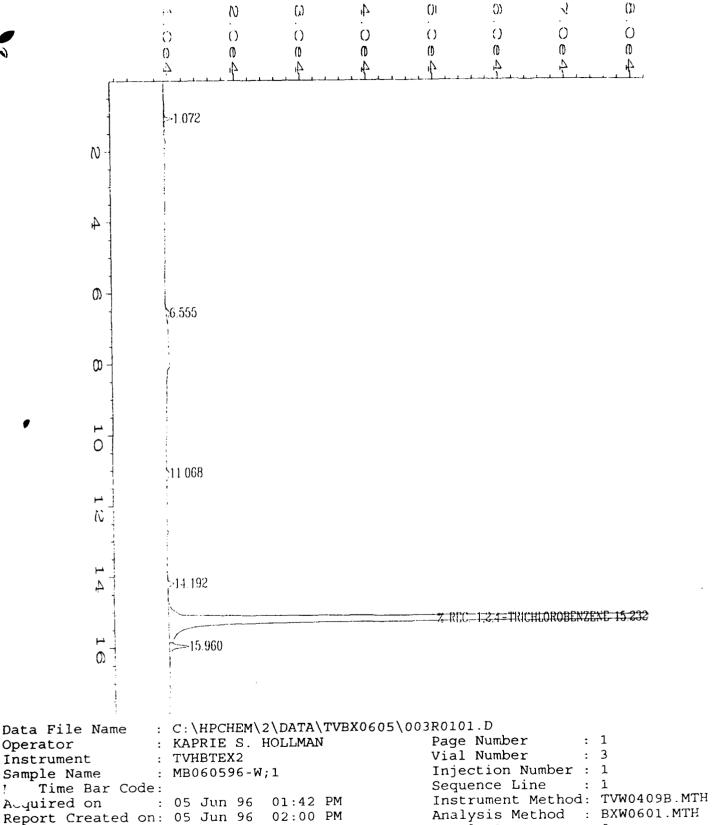
TVH = Total Volatile Hydrocarbons.

Analyst

Approved

TVBP1829.XLS; 6/6/96, 1





Sample Info

Multiplier

: 1 : WATER BLANK

Last Recalib on : 03 JUN 96 11:35 AM

Analysis Method : BXW0601.MTH

Sample Amount : 0

ISTD Amount

Methods 602/8020 and 5030/8015 Modified Data Report

Client Sample Number : CPT-1D Client Project Number : Madison ANGB

 Lab Sample Number
 : 96-1829-01
 Lab Work Order
 : 96-1829

 Date Sampled
 : 6/4/96
 Matrix
 : WATER

Date Received : 6/5/96 Lab File Number(s) : TVBX0605005
Date Prepared : 6/5/96 Method Blank : MB060596-W

FID Dilution Factor : 1.0
PID Dilution Factor : 1.0

		Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6/5/96	U	0.1	mg/L
Benzene	71-43-2	6/5/96	U	0.4	ug/L
Toluene	108-88-3	6/5/96	U	0.4	ug/L
Chlorobenzene	108-90-7	6/5/96	U	0.4	ug/L
Ethyl Benzene	100-41-4	6/5/96	U	0.4	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/5/96	U	0.4	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/5/96	Ú	0.4	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/5/96	U	0.4	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/5/96	U	0.4	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/5/96	U	0.5	ug/L
FID Surrogate Recovery:	_1	93%	<u> </u>	70%-130%	(Lim.
PID Surrogate Recovery:		102%		70%-128%	(Limits)

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

Comments:	 	

QUALIFIERS and DEFINITIONS:

E = Extrapolated value. Value exceeds calibration range.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

PID = Photoionization detector.

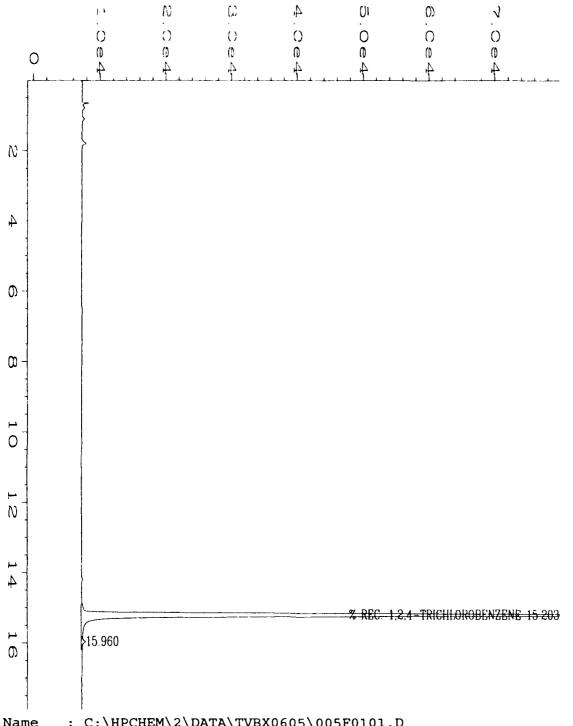
FID = Flame ionization detector.

TVH = Total Volatile Hydrocarbons.

Analyst

Approved

TVBP1829.XLS; 6/6/96; 2

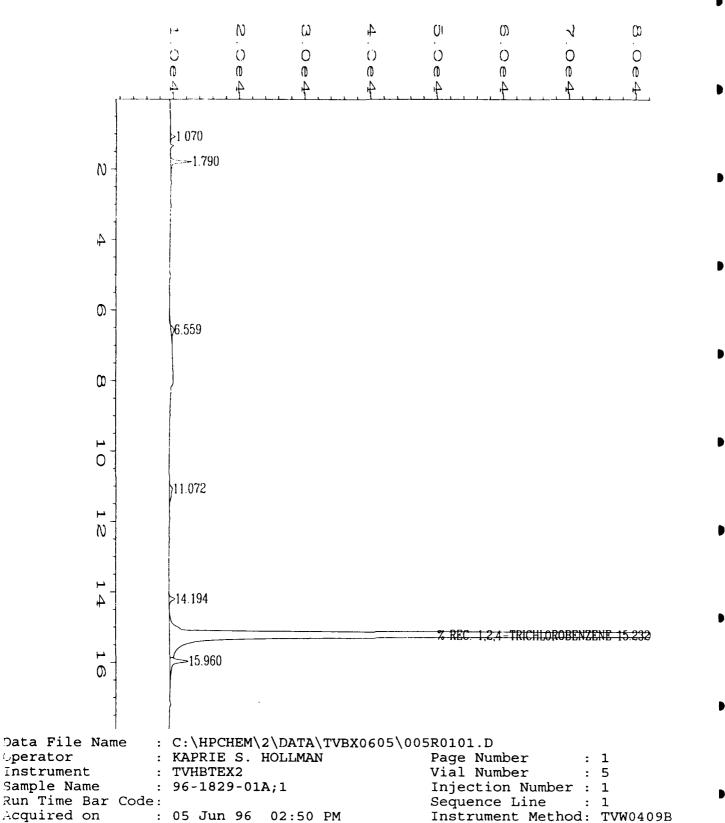


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Data File Name : C:\HPCHEM\2\DATA\TVBX0605\005F0101.D Operator : KAPRIE S. HOLLMAN Page Number Vial Number : 5 Instrument : TVHBTEX2 Sample Name : 96-1829-01A;1 Injection Number: 1 P ¬ Time Bar Code: Sequence Line : 1 ired on : 05 Jun 96 02:50 PM Instrument Method: TVW0409B.MTH Report Created on: 05 Jun 96 03:35 PM Analysis Method : TVW0409B.MTH Sample Amount Last Recalib on : 09 APR 96 10:42 AM : 0 ISTD Amount

Multiplier : 1

Sample Info : CPT-1D; WATER



Acquired on 03:08 PM Teport Created on: 05 Jun 96 Analysis Method : BXW0601.MTH Last Recalib on : 03 JUN 96 11:35 AM Sample Amount Multiplier ISTD Amount : 1 Sample Info : CPT-1D; WATER

Methods 602/8020 and 5030/8015 Modified Data Report

Client Sample Number

: CPT-5D

Client Project Number

Madison ANGB

Lab Sample Number

: 96-1829-02

Lab Work Order Matrix

96-1829 WATER

Date Sampled

: 6/4/96

Lab File Number(s)

TVBX0605006

Date Received Date Prepared

: 6/5/96 : 6/5/96

Method Blank

MB060596-W

FID Dilution Factor : 1.0 PID Dilution Factor : 1.0

		Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6/5/96	0.6	0.1	mg/L
Benzene	71-43-2	6/5/96	85	0.4	ug/L
Toluene	108-88-3	6/5/96	U	0.4	ug/L
Chlorobenzene	108-90-7	6/5/96	U	0.4	ug/L
Ethyl Benzene	100-41-4	6/5/96	U	0.4	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/5/96	15	0.4	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/5/96	U	0.4	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/5/96	1.5	0.4	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/5/96	0.4	0.4	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/5/96	U	0.5	ug/L
ID Surrogate Recovery:		94%	1	70%-130%	(Limits)
PID Surrogate Recovery:		99%		70%-128%	(Limits)

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

Comments:		
		-

QUALIFIERS and DEFINITIONS:

E = Extrapolated value. Value exceeds calibration range.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.

RL = Reporting Limit.

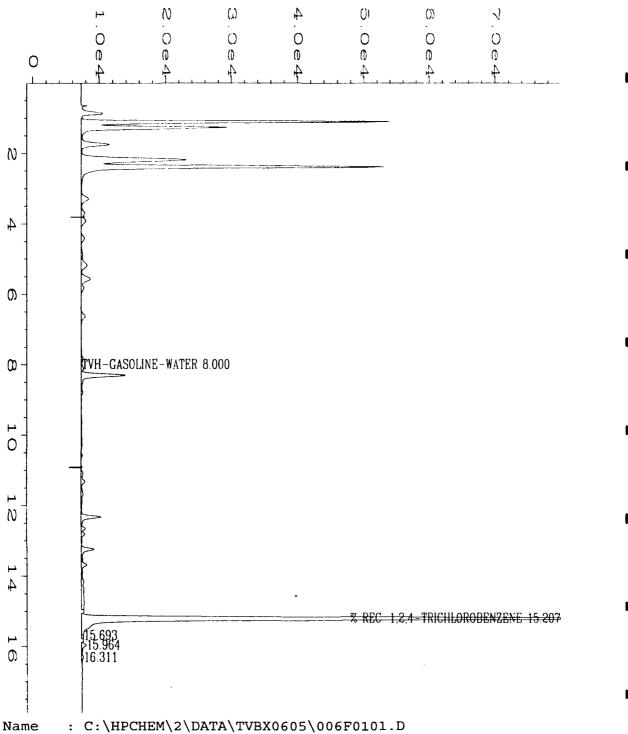
NA = Not Available/Not Applicable.

PID = Photoionization detector.

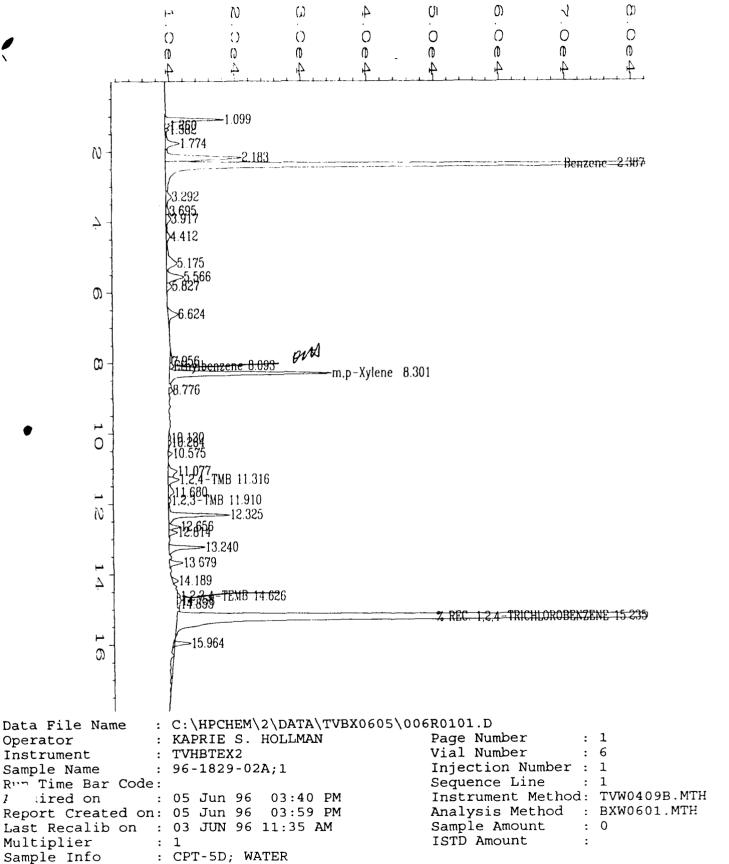
FID = Flame ionization detector.

TVH = Total Volatile Hydrocarbons.

TVBP1829.XLS; 6/6/96; 3



Data File Name Operator : KAPRIE S. HOLLMAN Page Number Instrument : TVHBTEX2 Vial Number : 6 Sample Name : 96-1829-02A;1 Injection Number: 1 Run Time Bar Code: Sequence Line Acquired on : 05 Jun 96 03:40 PM Instrument Method: TVW0409F Report Created on: 05 Jun 96 03:59 PM Analysis Method : TVW0409B.mf Last Recalib on : 09 APR 96 10:42 AM Sample Amount : 0 ISTD Amount Multiplier : 1 Sample Info : CPT-5D; WATER



Operator

Methods 602/8020 and 5030/8015 Modified Data Report

Client Sample Number

: CPT-5S

Client Project Number

Madison ANGB

Lab Sample Number

: 96-1829-03

Lab Work Order Matrix

103%

96-1829 WATER

Date Sampled Date Received

: 6/4/96 : 6/5/96

Lab File Number(s)

TVBX0605007

70%-128%

(Limits) |

Date Prepared

: 6/5/96

Method Blank

FID Dilution Factor

: 1.0

MB060596-W

PID Dilution Factor

: 1.0

		Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6/5/96	U	0.1	mg/L
Benzene	71-43-2	6/5/96	Ü	0.4	ug/L
Toluene	108-88-3	6/5/96	U	0.4	ug/L
Chlorobenzene	108-90-7	6/5/96	U	0.4	ug/L
Ethyl Benzene	100-41-4	6/5/96	U	0.4	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/5/96	U	0.4	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/5/96	U	0.4	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/5/96	υ	0.4	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/5/96	U	0.4	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/5/96	U	0.5	ug/L
FID Surrogate Recovery:		94%	<u> </u>	70%-130%	(Lim

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

Comments:			

QUALIFIERS and DEFINITIONS:

PID Surrogate Recovery:

E = Extrapolated value. Value exceeds calibration range.

U = Compound analyzed for, but not detected.

 \mathbf{B} = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.

RL = Reporting Limit.

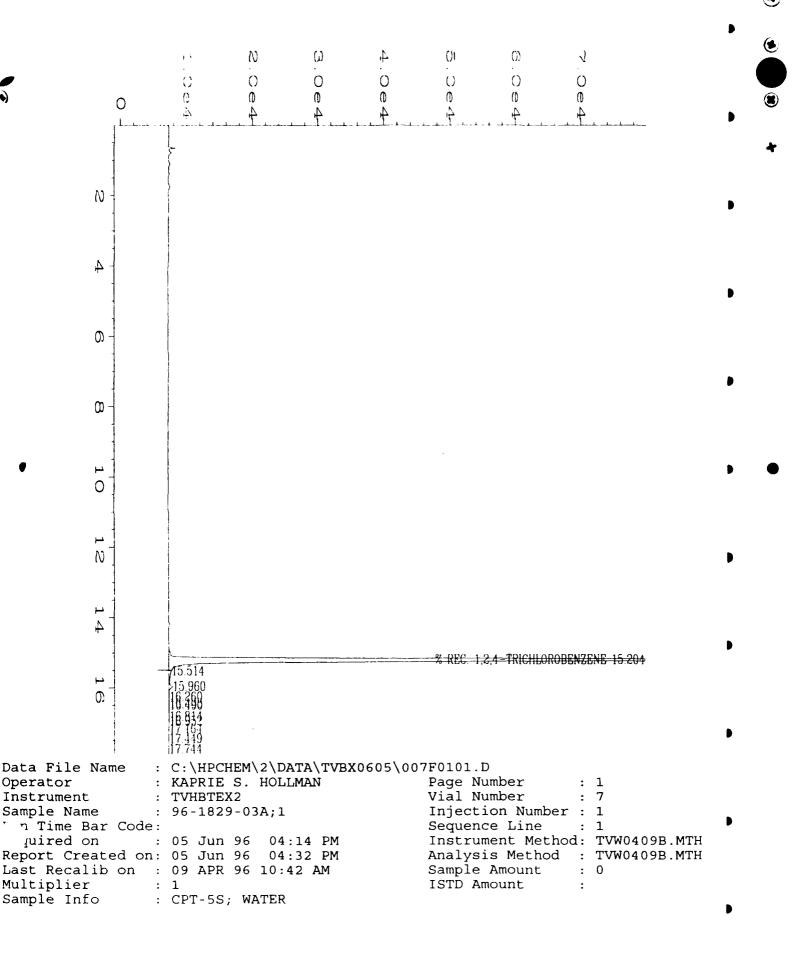
NA = Not Available/Not Applicable.

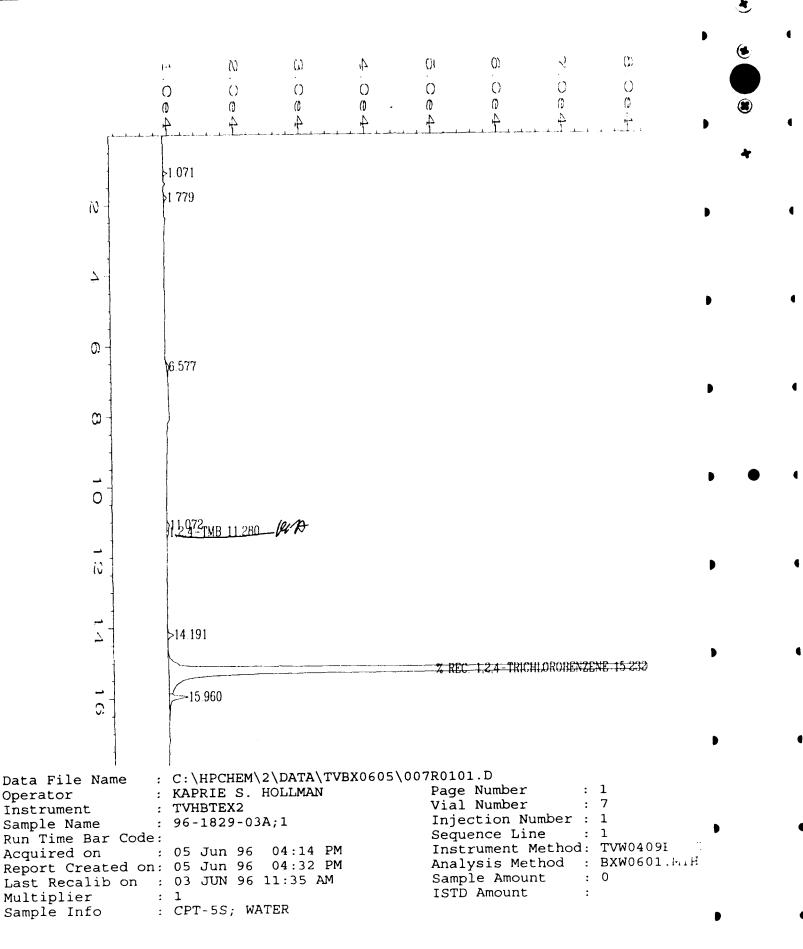
PID = Photoionization detector.

FID = Flame ionization detector.

TVH = Total Volatile Hydrocarbons.

TVBP1829.XLS; 6/6/96; 4





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Methods 602/8020 and 5030/8015 Modified Data Report

Client Sample Number : CPT-4D Client Project Number : Madison ANGB Lab Sample Number : 96-1829-04 Lab Work Order : 96-1829

Date Sampled : 6/4/96 Matrix : WATER

 Date Received
 : 6/5/96
 Lab File Number(s)
 : TVBX0605008,23

 Date Prepared
 : 6/5/96
 Method Blank
 : MB060596-W

FID Dilution Factor : 1.0
PID Dilution Factor : 1.0, 10

		Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6/5/96	1.0	0.1	mg/L
Benzene	71-43-2	6/6/96	310	4.0	ug/L
Toluene	108-88-3	6/5/96	U	0.4	ug/L
Chlorobenzene	108-90-7	6/5/96	U	0.4	ug/L
Ethyl Benzene	100-41-4	6/5/96	U	0.4	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/5/96	31	0.4	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/5/96	3.3	0.4	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/5/96	30	0.4	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/5/96	9.1	0.4	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/5/96	4.4	0.5	ug/L
D Surrogate Recovery:		98%		70%-130%	(Limits)
PID Surrogate Recovery:		105%, 106%		70%-128%	(Limits)

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

Comments:			
	 · · · · · · · · · · · · · · · · · · ·	· ·	

QUALIFIERS and DEFINITIONS:

E = Extrapolated value. Value exceeds calibration range.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

PID = Photoionization detector.

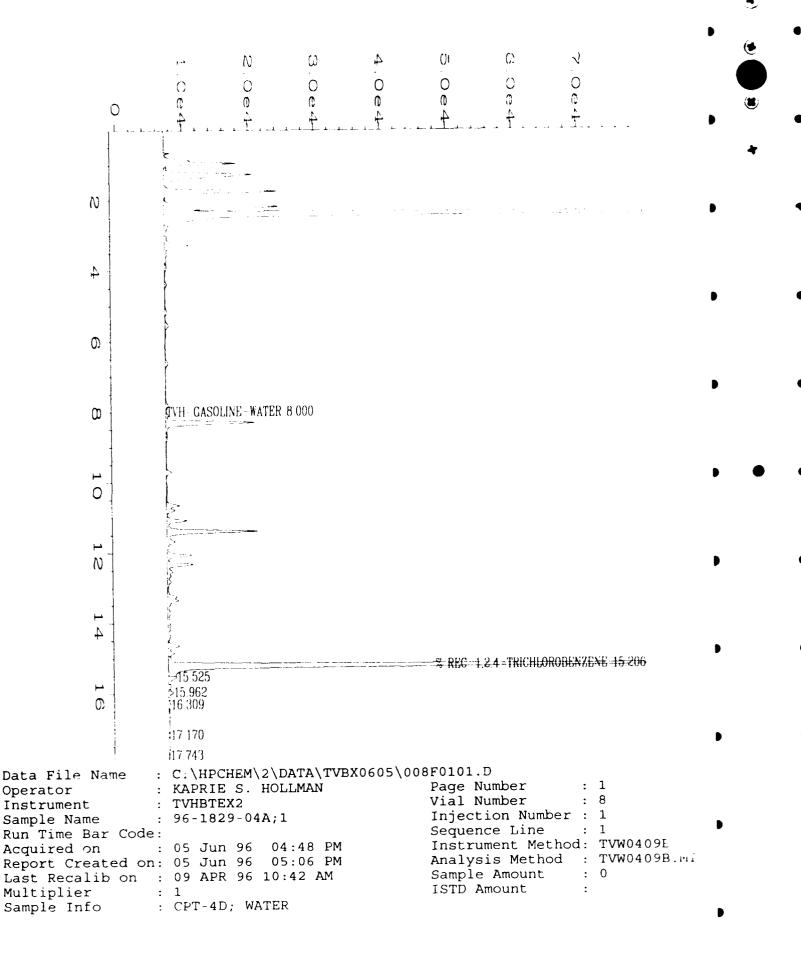
FID = Flame ionization detector.

TVH = Total Volatile Hydrocarbons.

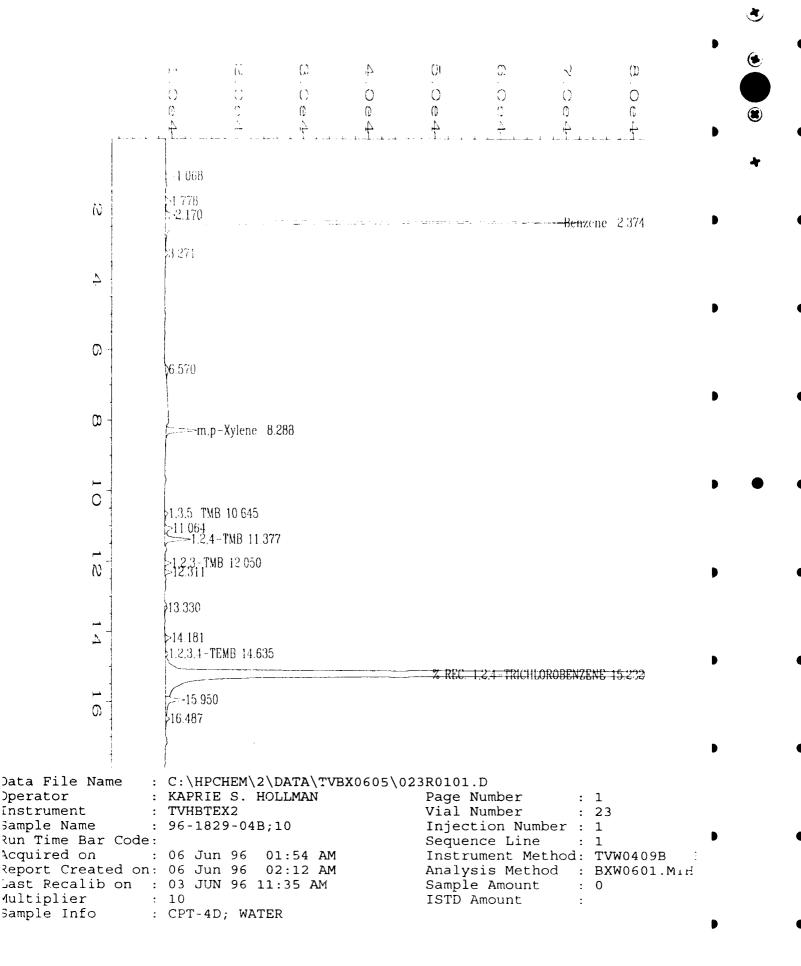
Analyst

Approved

TVBP1829 XLS, 6/6/96, 5



, , k. 4 - 4.		4. O 0 2	0 0 0 0 0 0 4	? 0 6 4	© O O +
N	1 53 E 1.331 1 53 FE 1.331 1 789 		<u></u>	.e. z.r.t	2412 BenZene D
4.	4 384				
o -	5 165 5 560 6 620 6 624				•
89	Chlorobenzene 7-748 EXAMENTE PROPERTY NEW YORK TO THE COMPANY OF T		JYI	i.p-Xylene 8.300	•
10	→9 705 →1.9.654 NB 10 787 —11.076				•
1 2	≥11.675 12.3-TMB 12 ≥12.8138		1,2.4-	TMB 11.390	•
14 16	13.69 14.39 214.39 214.849 3.4 TEMB 14.644 215.529 215.962			RICHLOROBENZENI	} ; 15.235
perator istrument imple Name in Time Bar Code uired on port Created on ist Recalib on iltiplier	C:\HPCHEM\2\DATA\ : KAPRIE S. HOLLMAI : TVHBTEX2 : 96-1829-04A;1 : : 05 Jun 96 04:48 : 05 Jun 96 05:06 : 03 JUN 96 11:35 i : 1 : CPT-4D; WATER	PM PM	Page Number Vial Number Injection Sequence I Instrument	Number: 1 Line: 1 Method: T Method: B Dunt: 0	▼ VW0409B.MTH XW0601.MTH



Methods 602/8020 and 5030/8015 Modified Data Report

Client Sample Number : MW-13 Client Project Number

 Lab Sample Number
 : 96-1829-05
 Lab Work Order
 : 96-1829

 Date Sampled
 : 6/4/96
 Matrix
 : WATER

Date Received: 6/5/96Lab File Number(s): TVBX0605009Date Prepared: 6/5/96Method Blank: MB060596-W

FID Dilution Factor : 1.0
PID Dilution Factor : 1.0

		Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6/5/96	U	0.1	mg/L
Benzene	71-43-2	6/5/96	U	0.4	ug/L
Toluene	108-88-3	6/5/96	U	0.4	ug/L
Chlorobenzene	108-90-7	6/5/96	U	0.4	ug/L
Lthyl Benzene	100-41-4	6/5/96	U	0.4	ug/Ĺ
Total Xylenes (m,p,o)	1330-20-7	6/5/96	U	0.4	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/5/96	U	0.4	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/5/96	U	0.4	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/5/96	U	0.4	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/5/96	U	0.5	ug/L
● ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■		98%	<u> </u>	70%-130%	(Limits)
PID Surrogate Recovery:		104%		70%-128%	(Limits)

Notes: Total Xylenes consist of three isomers, two of which co-eluce. The Xylene RL is for a single peak.

Comments:			
	-	 	

QUALIFIERS and DEFINITIONS:

E = Extrapolated value. Value exceeds calibration range.

U = Compound analyzed for, but not detected.

 \mathbf{B} = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

PID = Photoionization detector.

FID = Flame ionization detector.

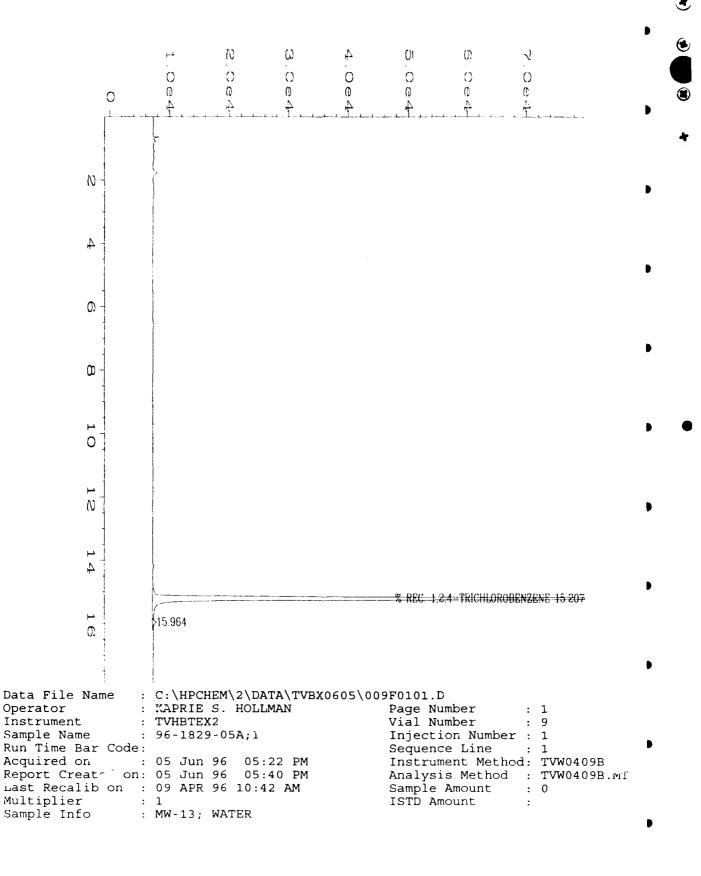
TVH = Total Volatile Hydrocarbons.

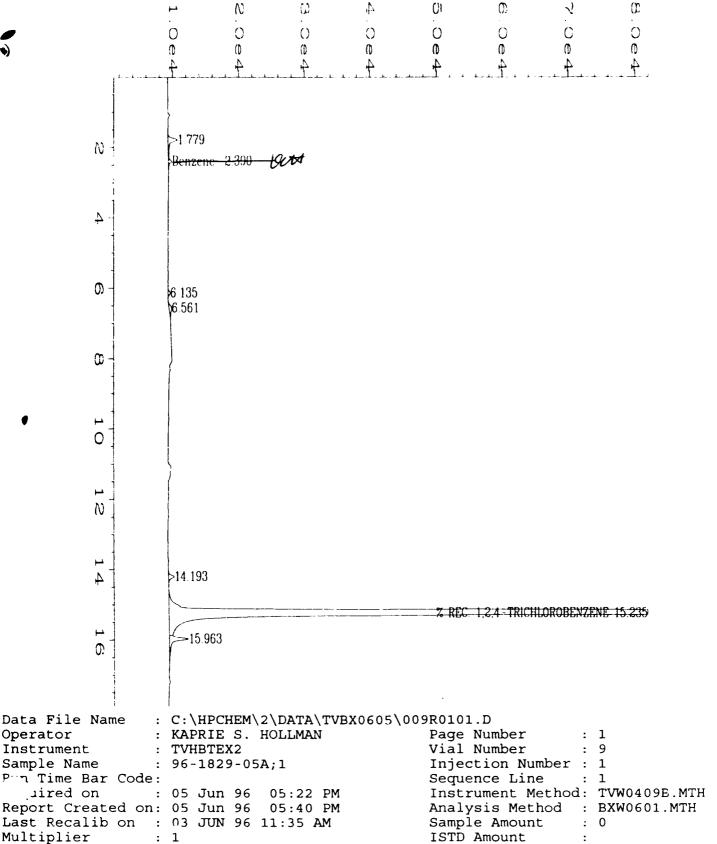
Analyst

Approved

TVBP1829.XLS, 6/6/96, 6

Madison ANGB





Sample Info

: MW-13; WATER

ISTD Amount

Methods 602/8020 and 5030/8015 Modified Data Report

Client Sample Number : MW-12 Client Project Number : Madison ANGB

 Lab Sample Number
 : 96-1829-06
 Lab Work Order
 : 96-1829

 Date Sampled
 : 6/4/96
 Matrix
 : WATER

Date Received : 6/5/96 Lab File Number(s) : TVBX0605010
Date Prepared : 6/5/96 Method Blank : MB060596-W

FID Dilution Factor : 1.0
PID Dilution Factor : 1.0

		Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6/5/96	U	0.1	mg/L
Benzene	71-43-2	6/5/96	U	0.4	ug/L
Toluene	108-88-3	6/5/96	U	0.4	ug/L
Chlorobenzene	108-90-7	6/5/96	U	0.4	ug/L
Ethyl Benzene	100-41-4	6/5/96	U	0.4	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/5/96	U	0.4	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/5/96	U	0.4	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/5/96	U	0.4	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/5/96	U	0.4	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/5/96	U	0.5	ug/L
FID Surrogate Recovery:			İ	70%-130%	(Lim
PID Surrogate Recovery:		104%		70%-128%	(Limits)

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

Commen	ts:			
_				

QUALIFIERS and DEFINITIONS:

E = Extrapolated value. Value exceeds calibration range.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

PID = Photoionization detector.

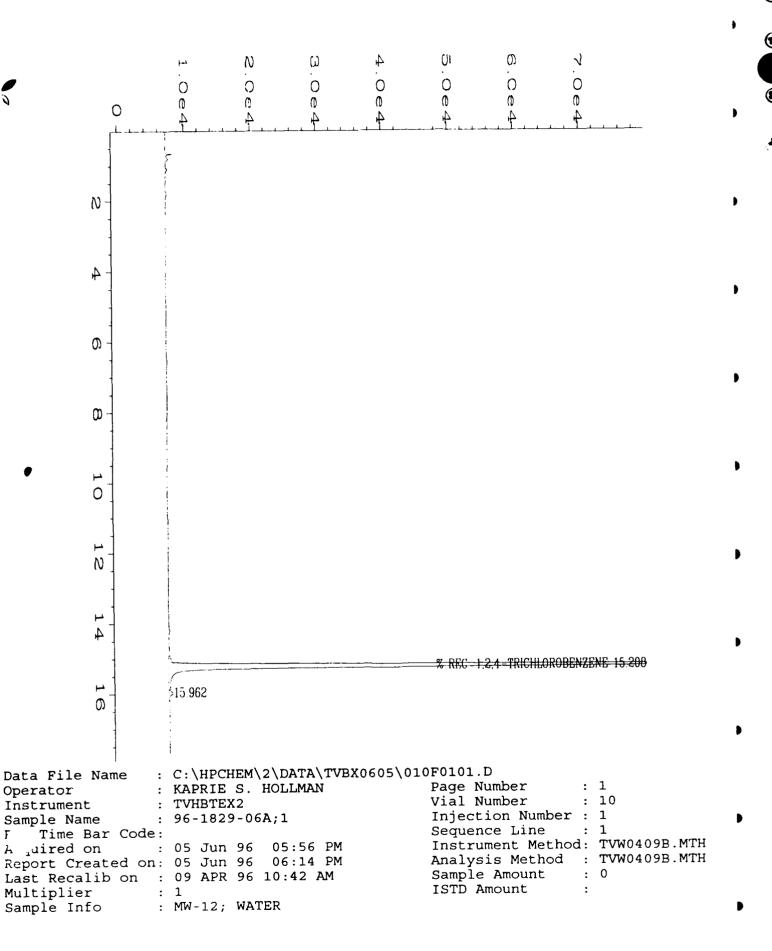
FID = Flame ionization detector.

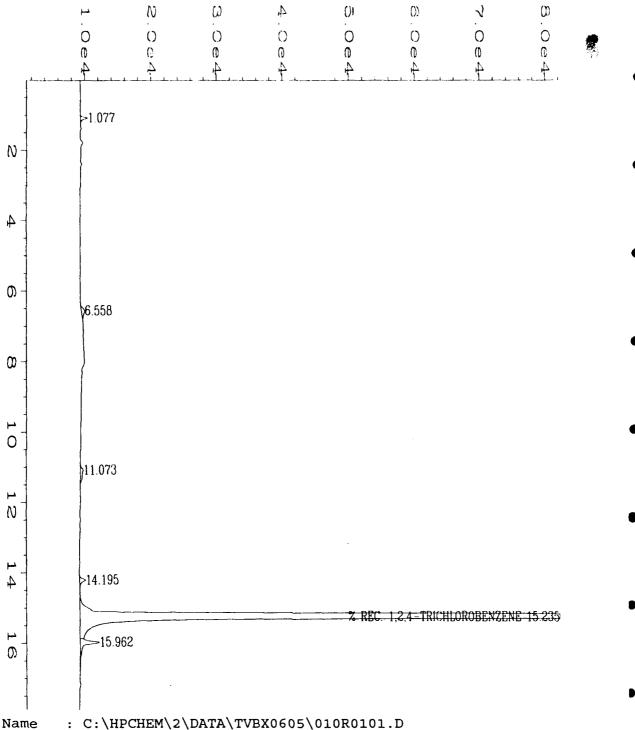
TVH = Total Volatile Hydrocarbons.

Analyst

Approved

TVBP1829.XLS; 6/6/96, 7





Data File Name Operator : KAPRIE S. HOLLMAN Page Number Vial Number Instrument : TVHBTEX2 : 10 Sample Name : 96-1829-06A;1 Injection Number: 1 Run Time Bar Code: Sequence Line : 1 Acquired on : 05 Jun 96 05:56 PM Instrument Method: TVW0409B Report Created on: 05 Jun 96 06:14 PM Analysis Method : BXW0601.MTH Last Recalib on : 03 JUN 96 11:35 AM Sample Amount : 0 ISTD Amount Multiplier : 1 Sample Info : MW-12; WATER

Methods 602/8020 and 5030/8015 Modified Data Report

Client Sample Number

: CPT-20S

Client Project Number

Madison ANGB

Lab Sample Number

: 96-1829-07

Lab Work Order

96-1829

Date Sampled

: 6/4/96

Matrix

WATER

Date Received Date Prepared

: 6/5/96

Lab File Number(s)

TVBX0605011 MB060596-W

FID Dilution Factor

: 6/5/96 : 1.0

Method Blank

PID Dilution Factor

: 1.0

		Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6/5/96	U	0.1	mg/L
Benzene	71-43-2	6/5/96	U	0.4	ug/L
Toluene	108-88-3	6/5/96	U	0.4	ug/L
Chlorobenzene	108-90-7	6/5/96	· U	0.4	ug/L
Ethyl Benzene	100-41-4	6/5/96	U	0.4	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/5/96	U	0.4	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/5/96	U	0.4	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/5/96	U	0.4	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/5/96	Ū	0.4	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/5/96	U	0.5	ug/L
D Surrogate Recovery:	_1	96%		70%-130%	(Limits)
PID Surrogate Recovery:		104%		70%-128%	(Limits)

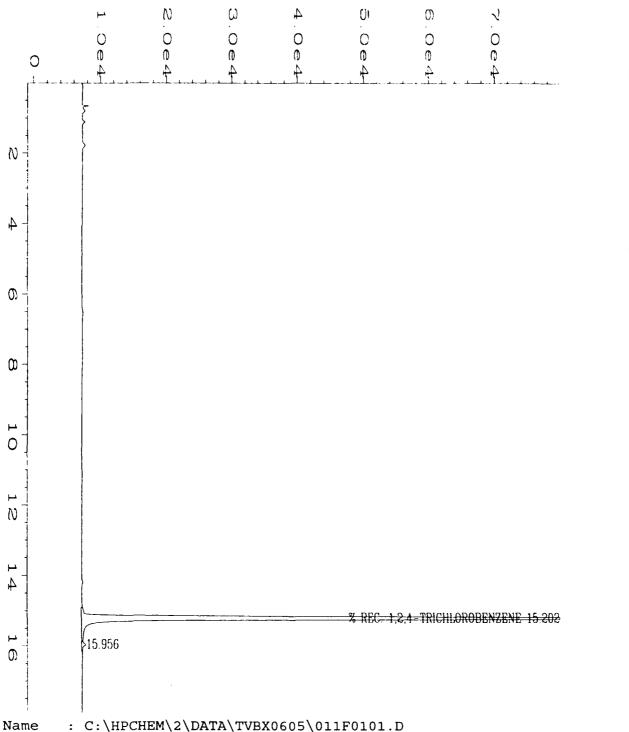
Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

Comments:		

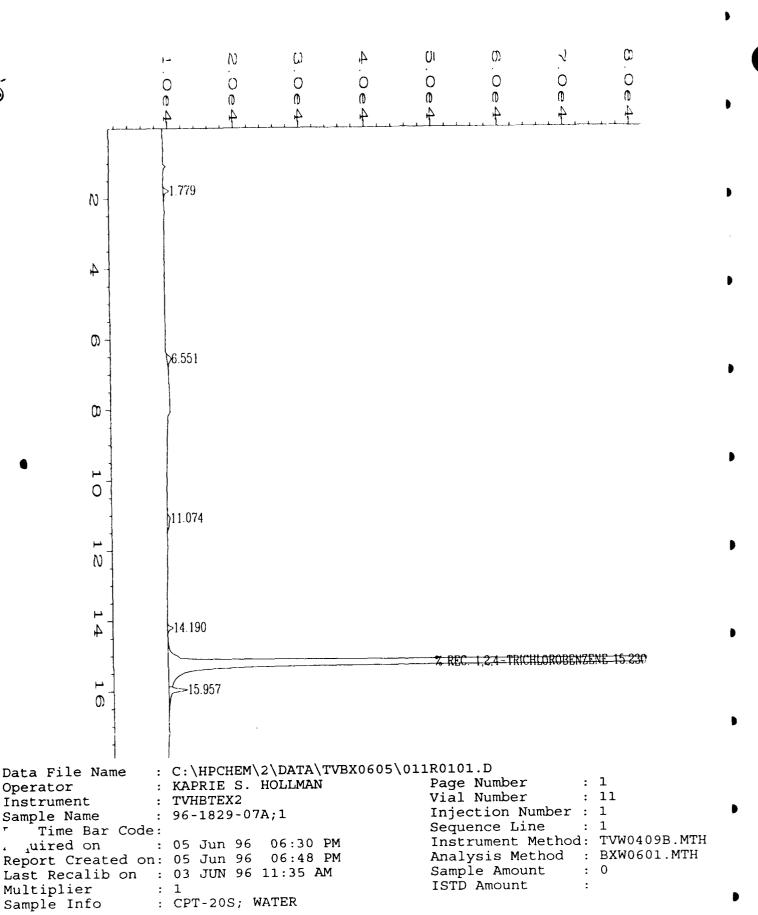
QUALIFIERS and DEFINITIONS:

- **E** = Extrapolated value. Value exceeds calibration range.
- U = Compound analyzed for, but not detected.
- **B** = Compound also found in the blank.
- J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.
- RL = Reporting Limit.
- NA = Not Available/Not Applicable.
- **PID** = Photoionization detector.
- FID = Flame ionization detector.
- TVH = Total Volatile Hydrocarbons.

TVBP1829.XLS; 6/6/96; 8



Data File Name Operator : KAPRIE S. HOLLMAN Page Number Instrument Vial Number : TVHBTEX2 : 11 : 96-1829-07A;1 Sample Name Injection Number: 1 Run Time Bar Code: Sequence Line : 1 Acquired on : 05 Jun 96 06:30 PM Instrument Method: TVW0409B Report Created on: 05 Jun 96 06:48 PM Analysis Method : TVW0409B.MTF Last Recalib on : 09 APR 96 10:42 AM Sample Amount : 0 Multiplier ISTD Amount : 1 Sample Info : CPT-20S; WATER



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Methods 602/8020 and 5030/8015 Modified Data Report

Client Sample Number : CPT-19S Client Project Number : Madison ANGB

 Lab Sample Number
 : 96-1829-08
 Lab Work Order
 : 96-1829

 Date Sampled
 : 6/4/96
 Matrix
 : WATER

Date Received : 6/5/96 Lab File Number(s) : TVBX0605012
Date Prepared : 6/5/96 Method Blank : MB060596-W

FID Dilution Factor : 1.0
PID Dilution Factor : 1.0

		Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6/5/96	U	0.1	mg/L
Benzene	71-43-2	6/5/96	U	0.4	ug/L
Toluene	108-88-3	6/5/96	U	0.4	ug/L
Chlorobenzene	108-90-7	6/5/96	U	0.4	ug/L
Ethyl Benzene	100-41-4	6/5/96	U	0.4	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/5/96	U	0.4	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/5/96	U	0.4	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/5/96	U	0.4	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/5/96	U	0.4	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/5/96	U	0.5	ug/L
FID Surrogate Recovery:		94%		70%-130%	(Lim.
PID Surrogate Recovery:	· · · · · · · · · · · · · · · · · · ·	103%		70%-128%	(Limits

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

Comments:				
	 	 	 	

QUALIFIERS and DEFINITIONS:

E = Extrapolated value. Value exceeds calibration range.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

PID = Photoionization detector.

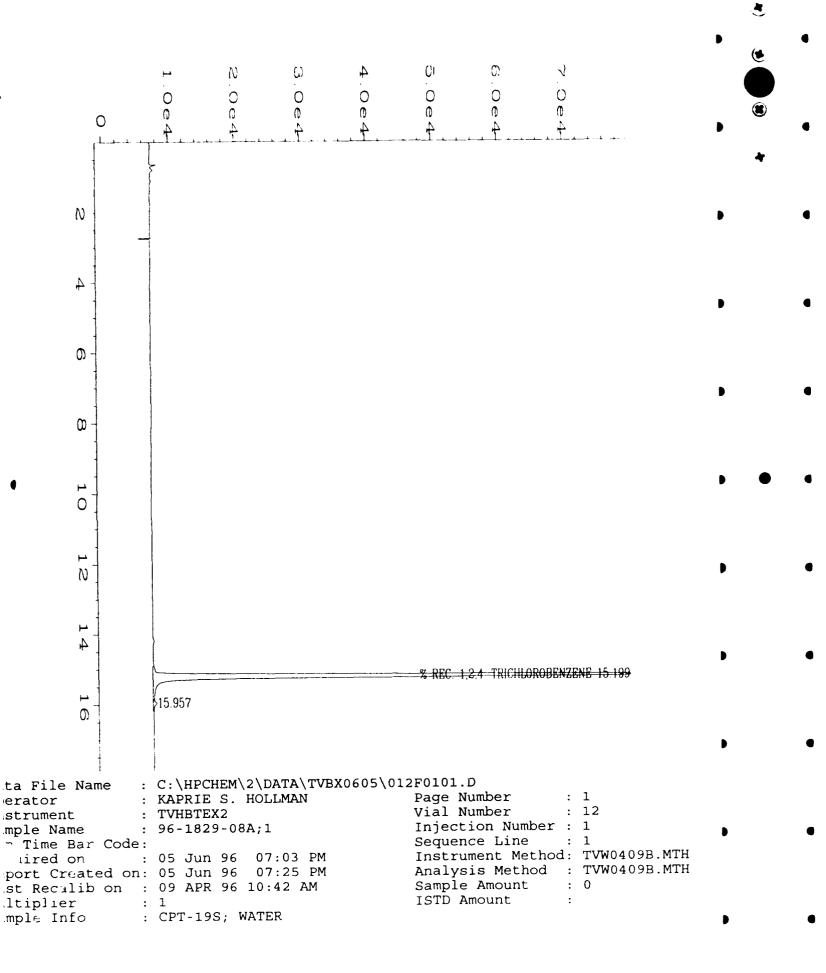
FID = Flame ionization detector.

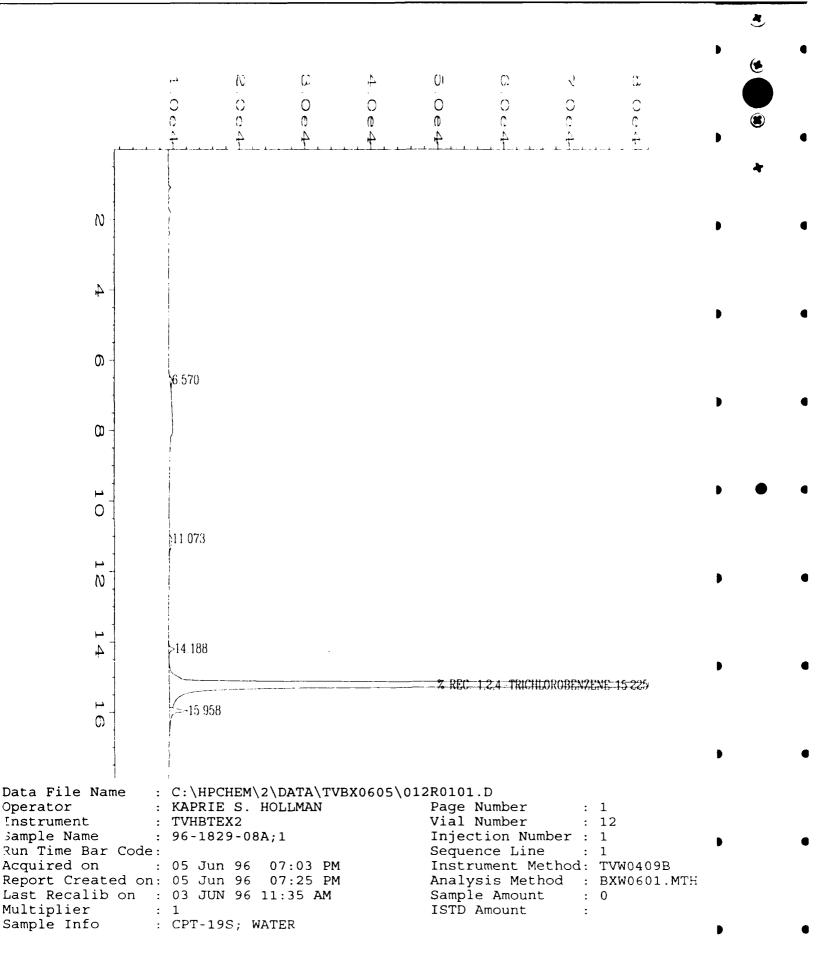
TVH = Total Volatile Hydrocarbons.

Analyst

Approved

TVBP1829.XLS; 6/6/96; 9





Methods 602/8020 and 5030/8015 Modified Data Report

Client Sample Number : TRIP BLANK Client Pro

Client Project Number : Madison ANGB

Lab Sample Number : 96-1829-09
Date Sampled : NA

Lab Work Order : 96-1829 Matrix : WATER

Date Received : 6/5/96
Date Prepared : 6/5/96

Lab File Number(s) : TVBX0605004 Method Blank : MB060596-W

FID Dilution Factor : 1.0
PID Dilution Factor : 1.0

		Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6/5/96	U	0.1	mg/L
Benzene	71-43-2	6/5/96	U	0.4	ug/L
Toluene	108-88-3	6/5/96	U	0.4	ug/L
Chlorobenzene	108-90-7	6/5/96	U	0.4	ug/L
Ethyl Benzene	100-41-4	6/5/96	U	0.4	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/5/96	Ū	0.4	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/5/96	U	0.4	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/5/96	U	0.4	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/5/96	U	0.4	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/5/96	Ü	0.5	ug/L
▼ID Surrogate Recovery:		97%		70%-130%	(Limits)
PID Surrogate Recovery:		104%		70%-128%	(Limits)

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

Comments:	

QUALIFIERS and DEFINITIONS:

E = Extrapolated value. Value exceeds calibration range.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

PID = Photoionization detector.

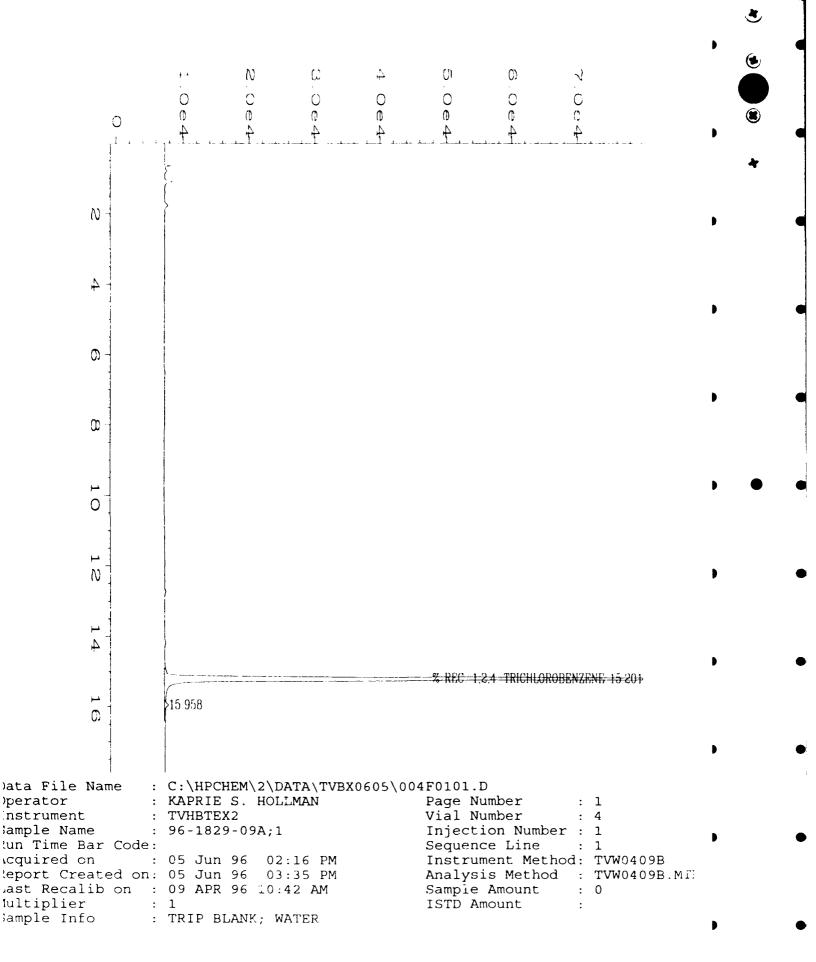
FID = Flame ionization detector.

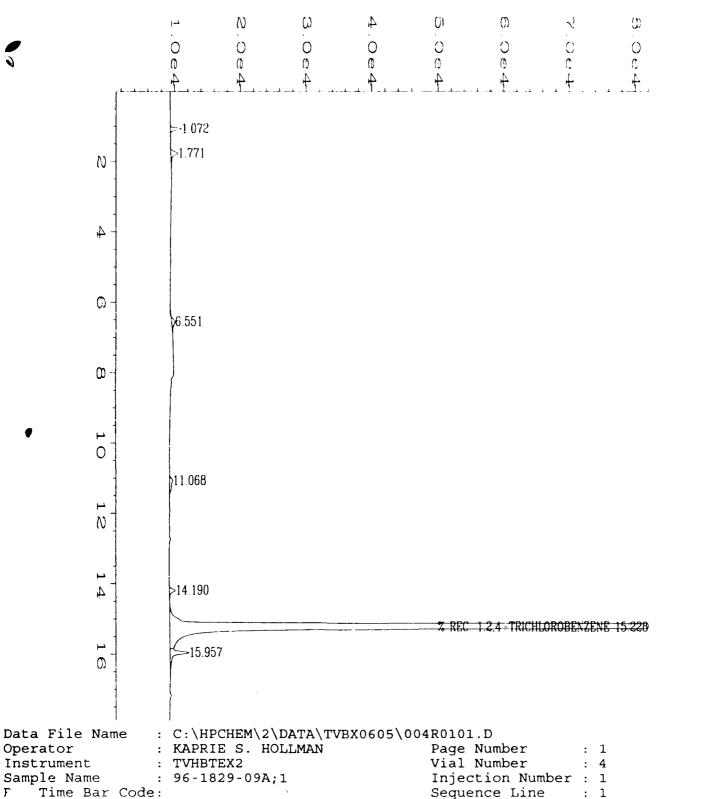
TVH = Total Volatile Hydrocarbons.

Analyst

Approved

TVBP1829 XLS; 6/6/96, 10





Instrument Method: TVW0409B.MTH

: 0

Analysis Method : BXW0601.MTH

Sample Amount

ISTD Amount

Last Recalib on: 05 Jun 96 02:16 PM

Report Created on: 05 Jun 96 02:34 PM

Last Recalib on: 03 JUN 96 11:35 AM

Multiplier: 1

Sample Info : TRIP BLANK; WATER

EPA 602/8020 Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: CPT-1D MS/MSD	Client Project No.	: Madison ANGB
Lab Sample No.	: 96-1829-10	Lab Work Order	: 96-1829
Date Sampled	: 6/4/96	EPA Method No.	: 602/8020
Date Received	: 6/5/96	Matrix	: WATER
Date Prepared	: 6/5/96	Lab File Number(s)	: TVBX0605021,22
Date Analyzed	: 6/6/96	Method Blank	: MB060596-W
Instrument Name	: TVHBTEX2	Dilution Factor	: 1.0

Compound	Spike Added	Sample Concentration		entration g/L)	
	(ug/L)	(ug/L)	MS	MSD	Comments
Benzene	20.0	0.0	17.7	17.7	
Toluene	20.0	0.0	17.7	17.7	
Chlorobenzene	20.0	0.0	18.2	18.4	
Ethylbenzene	20.0	0.0	17.6	17.7	
m,p-Xylene	20.0	0.0	17.6	17.6	
o-Xylene	20.0	0.0	18.0	18.0	
1,3,5-TMB	20.0	0.0	17.7	17.8	
1,2,4-TMB	20.0	0.0	18.2	18.4	
1,2,3-TMB	20.0	0.0	18.6	18.8	
1,2,3,4-TeMB	20.0	0.0	19.7	20.0	
Surrogate	100.0	102%	105%	103%	% RECOVERY

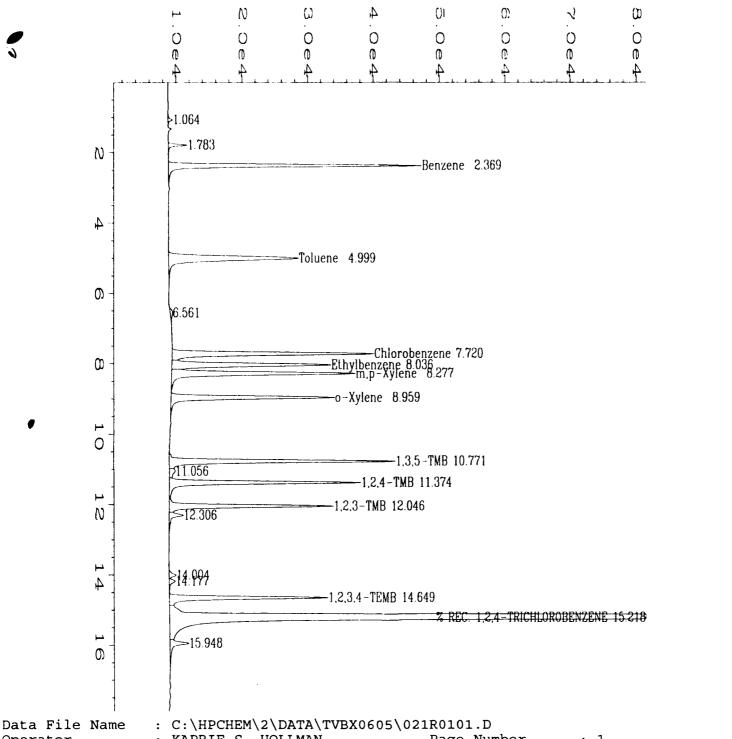
	MS	MSD			QC#
Compound	%	%	Į.	! 	Limits
	RECOVERY	RECOVERY	RPD	RPD	%REC
Benzene	88.5	88.5	0.0	21	60 - 132
Toluene	88.5	88.5	0.0	21	60 - 132
Chiorobenzene	91.0	92.0	1.1	19	67 - 127
Ethylbenzene	88.0	88.5	0.6	22	62 - 130
m,p-Xylene	88.0	88.0	0.0	21	58 - 136
o-Xylene	90.0	90.0	0.0	23	60 - 133
1,3,5-TMB	88.5	89.0	0.6	25	71 - 118
1,2,4-TMB	91.0	92.0	1.1	34	68 - 120
1,2,3-TMB	93.0	94.0	1.1	22	72 - 118
1,2,3,4-TeMB	98.5	100.0	1.5	34	68 - 125
Surrogate	105.0	103.0	NA	NA	70 - 128

#= Limits established 5/2	22/96, KSH.
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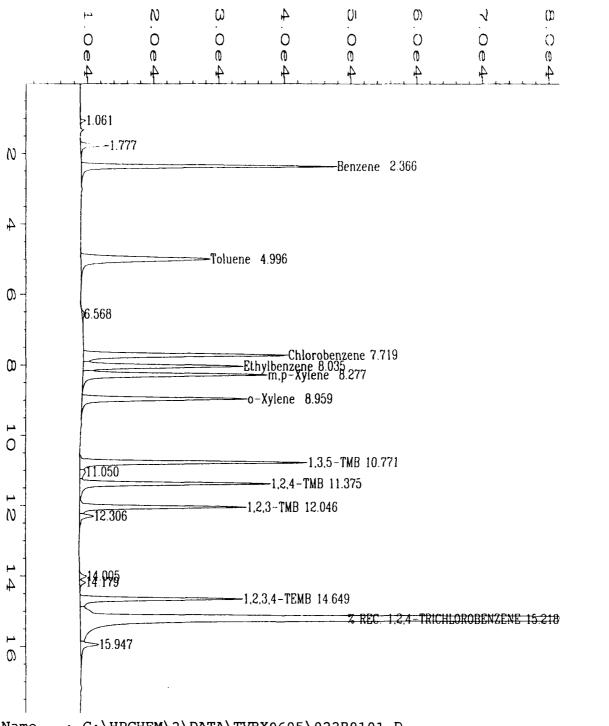
• = Values outsid	e of QC lin	nits.		
RPD:	0	out of	(10)	outside limits.
Spike Recovery:	0	out of	(20)	outside limits.
Comments:				

K. Hollman Analyst

Approved/



: KAPRIE S. HOLLMAN Page Number Operator Vial Number Instrument : TVHBTEX2 : 21 Sample Name : 96-1829-10C-MS;1 Injection Number: 1 Time Bar Code: Sequence Line : 1 Instrument Method: TVW0409B.MTH lired on : 06 Jun 96 00:40 AM Report Created on: 06 Jun 96 00:58 AM Analysis Method : BXW0601.MTH Last Recalib on : 03 JUN 96 11:35 AM Sample Amount ISTD Amount Multiplier : CPT-1D MS/MSD; WATER, PLUS 20.0 PPB BTEX SPIKE #1871. Sample Info



Data File Name : C:\HPCHEM\2\DATA\TVBX0605\022R0101.D Operat.or : KAPRIE S. HOLLMAN Page Number Instrument : TVHBTEX2 Vial Number : 22 Sample Name : 96-1829-10D-MSD Injection Number: 1 Run Time Bar Code: Sequence Line : 1 Acquired on : 06 Jun 96 Instrument Method: TVW0409B 01:17 AM 01:35 AM Report Created on: 06 Jun 96 Analysis Method : BXW0601.MTH Last Recalib on : 03 JUN 96 11:35 AM Sample Amount : 0

Multiplier : 1 ISTD Amount :

Sample Info : CPT-1D MS/MSD; WATER, PLUS 20.0 PPB BTEX SPIKE #1871.

TOTAL VOLATILE HYDROCARBONS (TVH as Gasoline) TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: CPT-1D MS/MSD	Client Project No.	: Madison ANGB
Lab Sample No.	: 96-1829-10	Lab Work Order	: 96-1829
Date Sampled	: 6/4/96	EPA Method No.	: 5030/8015 Modified
Date Received	: 6/5/96	Matrix	: WATER
Date Prepared	: 6/5/96	Lab File Number(s)	: TVBX0605019,20
Date Analyzed	: 6/5,6/96	Method Blank	: MB060596-W
Instrument Name	: TVHBTEX2	Dilution Factor	: 1.0

Compound	Spike Added (mg/L)	Sample Concentration (mg/L)	MS Concentration (mg/L)	MS %REC		QC (#) Limits %REC	
Gasoline	2.00	0.00	1.72	86.0%	57	- 12	29
Surrogate **				97%	70	- 12	28

	Spike MSD				QC (#) Limits			
Compound	Added	Added Concentration		RPD				
	(mg/L)	(mg/L)	%REC		RPD	%REC		
Gasoline	2.00	1.64	82.0%	4.8	44.1	57 - 129		
Surrogate **			97%	NA	NA	70 - 128		

out of (1) outside limits.

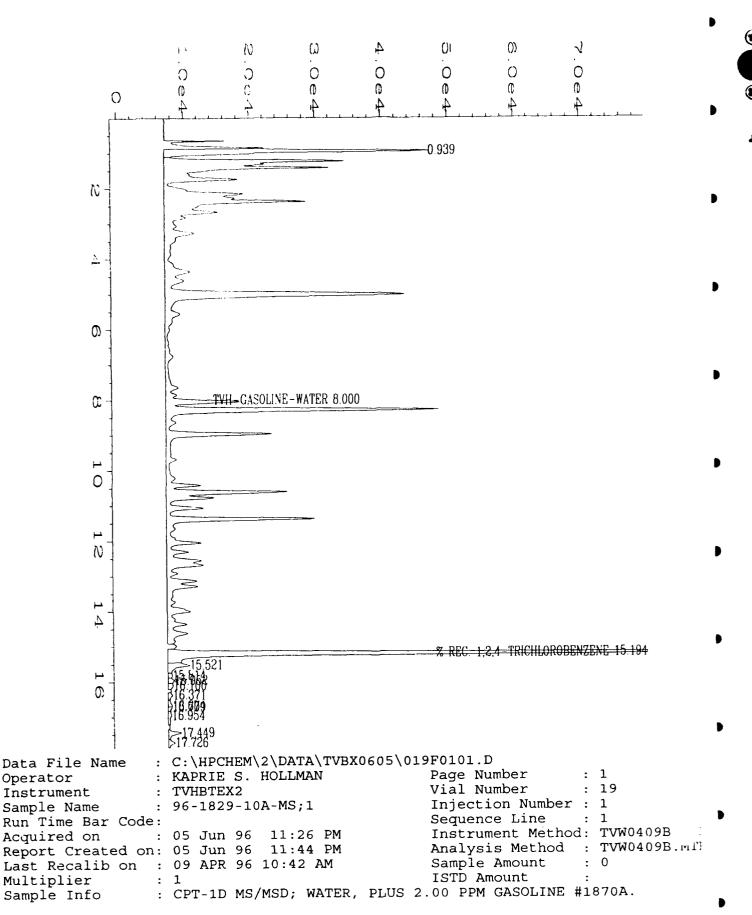
Spike Recovery: out of (2) outside limits.	
Notes:	
NA = Not analyzed/not applicable.	
* = Values outside of QC limits.	
** = 1,2,4-Trichlorobenzene	
# = Limits established 5/22/96, KSH.	
Comments:	

K Hollman

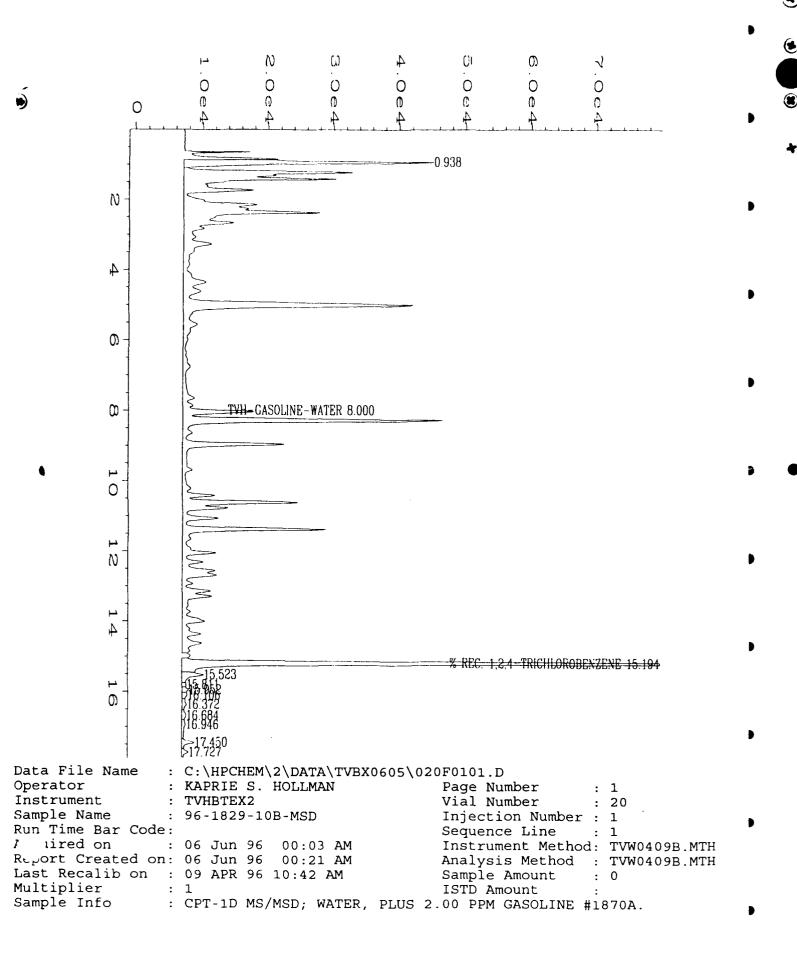
RPD:

Approved

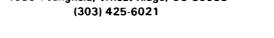
MSTP1829.XLS; 6/6/96



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TOTAL EXTRACTABLE HYDROCARBONS (TEH-JP-4)

Date Sampled
Date Received
Date Prepared

: 6/4/96 : 6/5/96 : 6/5/96 Client Project Number

: Madison ANGB

Lab Work Order : 96-1829

Method Number

: EPA 3500/8015 Modified

Evergreen Sample #	Dilution Factor	Client Sample #	Matrix	Analysis Date	Surrogate Recovery	Sample Result	RL	Units
WB060596	1	Water Method Blank	Water	6/12/96	91%	U	0.5	mg/L
96-1829-06	1	MW-12	Water	6/13/96	97%	U	0.5	mg/L
96-1829-08	1	CPT-19S	Water	6/13/96	97%	U	0.5	mg/L

Qualifiers

U = TEH analyzed for, but not detected.

B = TEH-JP-4 also found in blank.

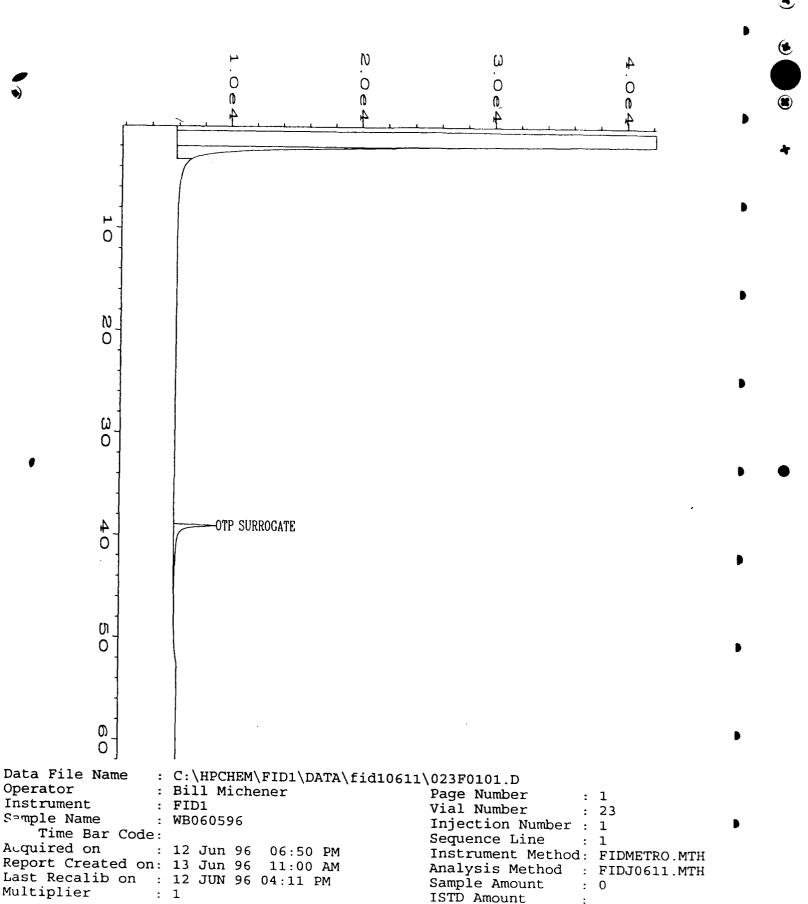
E = Extrapolated value. Value exceeds calibration range.

RL = Reporting Limit.

Analyst

Notes

Surrogate = OTP

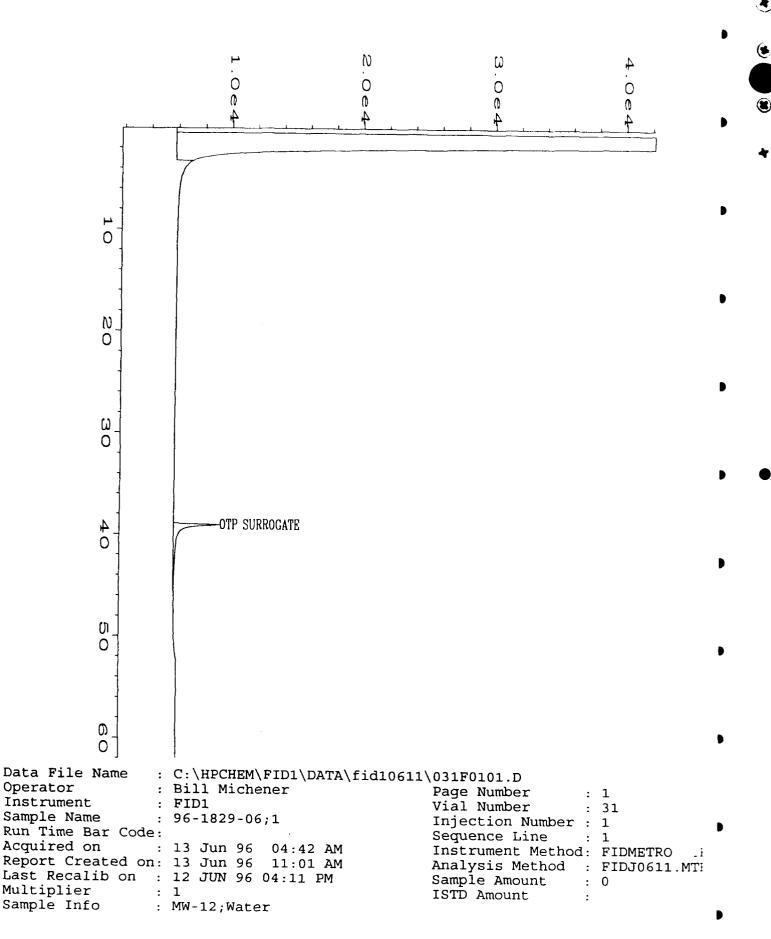


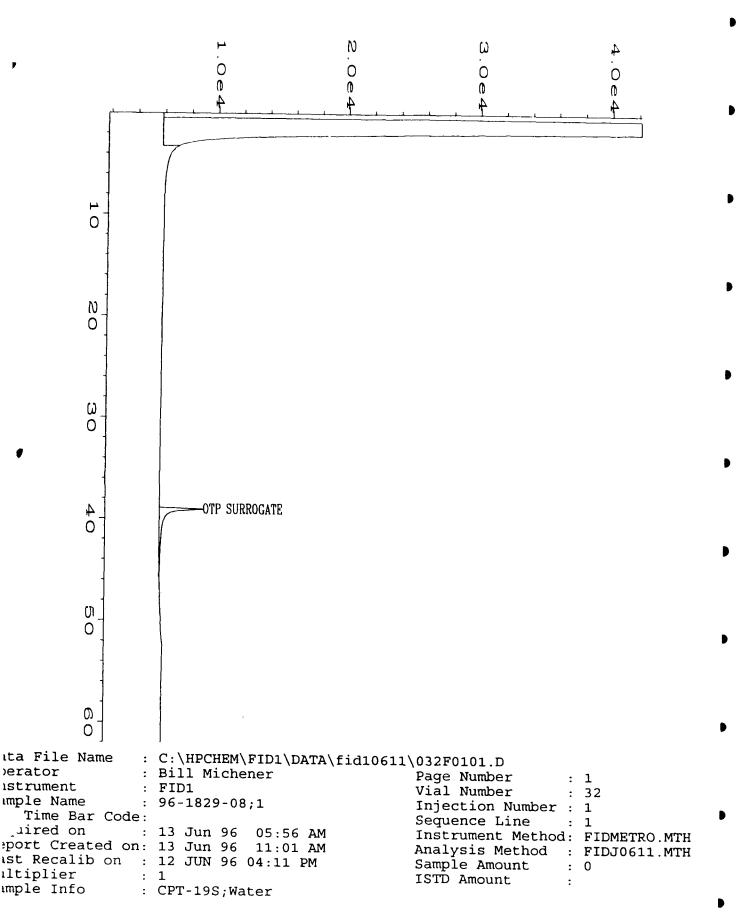
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TEH Laboratory Control Spike/Laboratory Control Spike Duplicate Data Report

LCS Number

: LCSI&II060596w

Matrix

Date Prepared

: 6/5/96

: Water Method Number

: EPA 3500/8015 Modified

Date Analyzed

: 6/12,13/96

Lab File No.

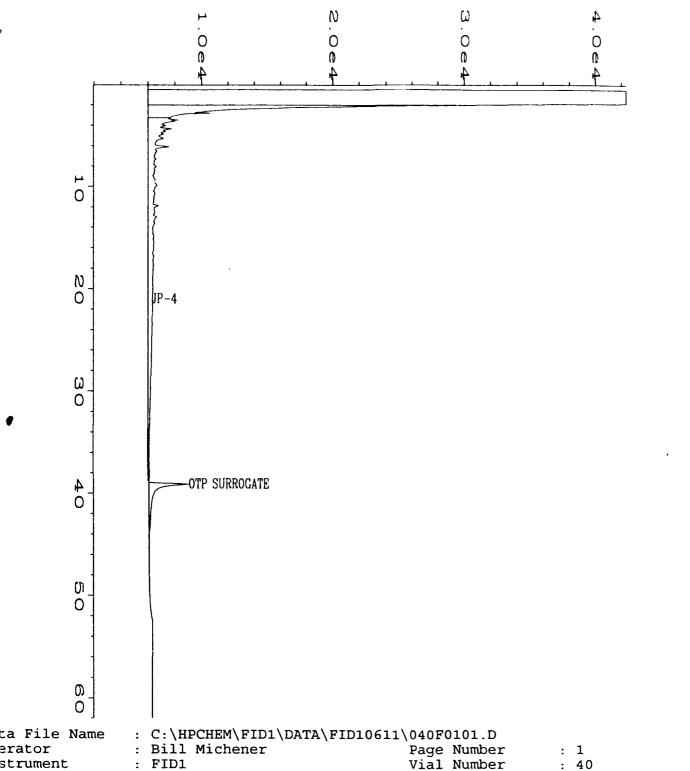
: FID10611026,040

Compound	Spike Added (mg/L)	Sample Blank Concentration (mg/L)	LCS* Concentration (mg/L)	LCS %REC	QC Limits %REC
JP-4	1000	0	1186	118.6	50-121
Surrogate	NA	91%	90%	NA	50-150

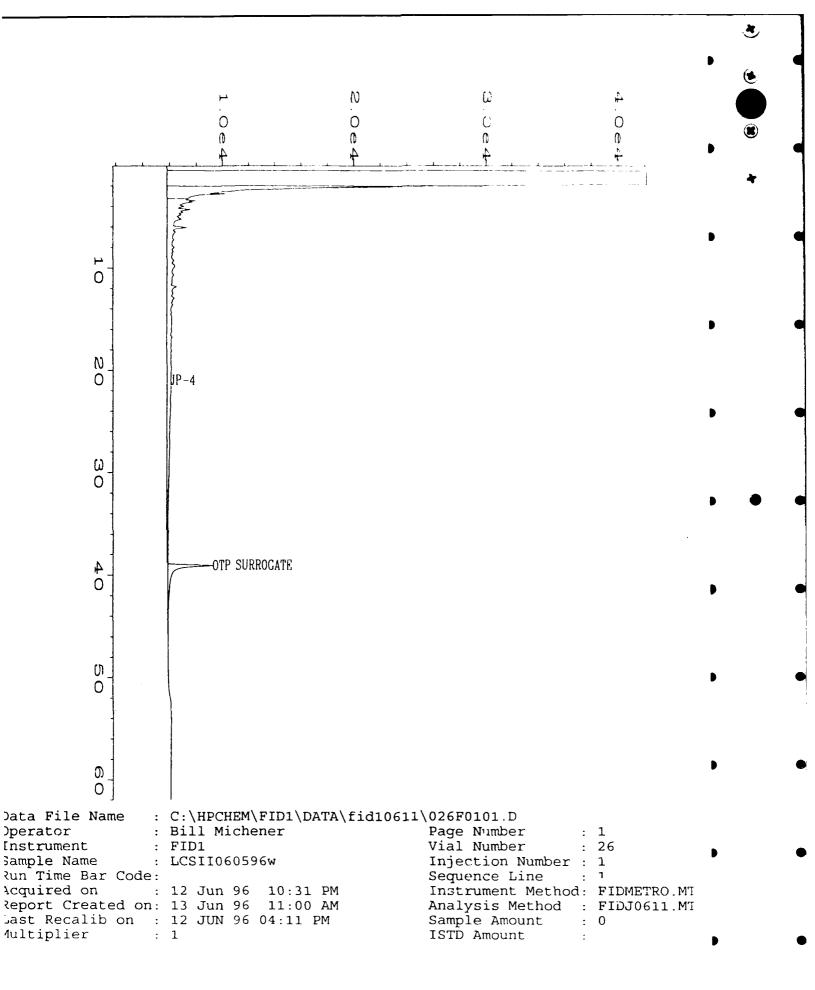
	Spike LCSD*				QC		
Compound	Added	Concentration	LCSD		ι	imits	
	(mg/L)	(mg/L)	%REC	RPD	RPD	%REC	
JP-4	1000	988	98.8	18.1	50	50-121	
Surrogate	NA	85%	NA	NA	NA	50-150	

RPD:	0 out of (1) outside limits.					
Spike Recovery:	0 out of (2) outside limits.					
Notes						
** = Values outs	side of QC limits.					
NA = Not analyzed	I/not applicable.					
Comments:	* LCS concentrations are reported based on the one ml extract volume.					

LCS0605.XLS; 6/14/96



erator : FID1 strument Vial Number : 40 າle Name : LCSI060596w Injection Number: 1 Time Bar Code: Sequence Line : 1 quired on : 13 Jun 96 09:00 PM port Created on: 14 Jun 96 07:05 AM Instrument Method: FIDMETRO.MTH Analysis Method : FIDJ0611.MTH st Recalib on : 12 JUN 96 04:11 PM Sample Amount ISTD Amount : 0 ltiplier : 1



RSKSOP-175 Gas Method Methane LCS Report Form

LCS No.

: LCS061496

EPA Method No.

: RSKSOP-175

Date Prepared

: 6/14/96

Matrix

: Water

Date Analyzed

: 6/14/96

Method Blank

: GB061496

E.A. LCS Source No.

: 1719

Lab File No.

: GAS0614006

	Spike	Method Blank	LCS		QC
Compound	Added	Concentration	Concentration	LCS	Limits
	(ug)	(ug)	(ug)	%REC	%REC
Methane Gas	500	0	395	79	67-85

Spike Recovery: 0 out of (1) outside limits.

Note: The LCS was made by taking the sample and displacing 4ml of headspace with a 1% methane gas and shaking the VOA for 5 minutes. Then injecting 50 ul from the headspace into the GC resulting in a theoretical concentration of 500 ug.

Notes

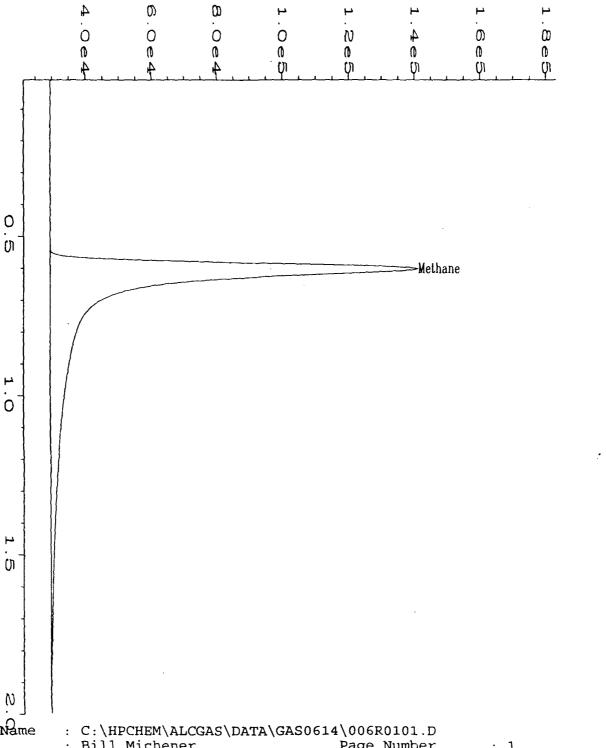
* = Values outside of QC limits.

NA = Not analyzed/not available.

Analyst

Approved

LCS0614.XLS; 6/17/96



Data File Name Operator : Bill Michener Page Number Instrument : ALCGAS Vial Number Sample Name : LCS061496;Gas Injection Number: 1 ?un Time Bar Code: Sequence Line : 1 Acquired on : 14 Jun 96 10:08 AM Instrument Method: GAS.MTH Report Created on: 17 Jun 96 10:39 AM Analysis Method : GAS0614.MTH Last Recalib on : 07 JUN 96 11:12 AM Sample Amount : 0 Multiplier ISTD Amount : 1

Sample Info : Laboratory Control Sample

Displaced 4ml of deionized water in 43ml vial with 19

Methane Report Form Method Blank Report

Method Blank Number Date Extracted/Prepared Date Analyzed

GB061496

: 6/14/96 : 6/14/96

Client Project No.

Lab Work Order Dilution Factor

: Madison ANGB : 96-1829

: 1.00

Method : RSKSOP-175 Matrix

Lab File No.

: Water

: GAS0614002

Compound Name	Cas Number	Concentration	RL	
		mg/L	mg/L	
B.C. alla a series	74.02.0		0.002	
Methane	74-82-8	U	0.002	

Qualifiers

E = Extrapolated value.

U = Compound analyzed for, but not detected.

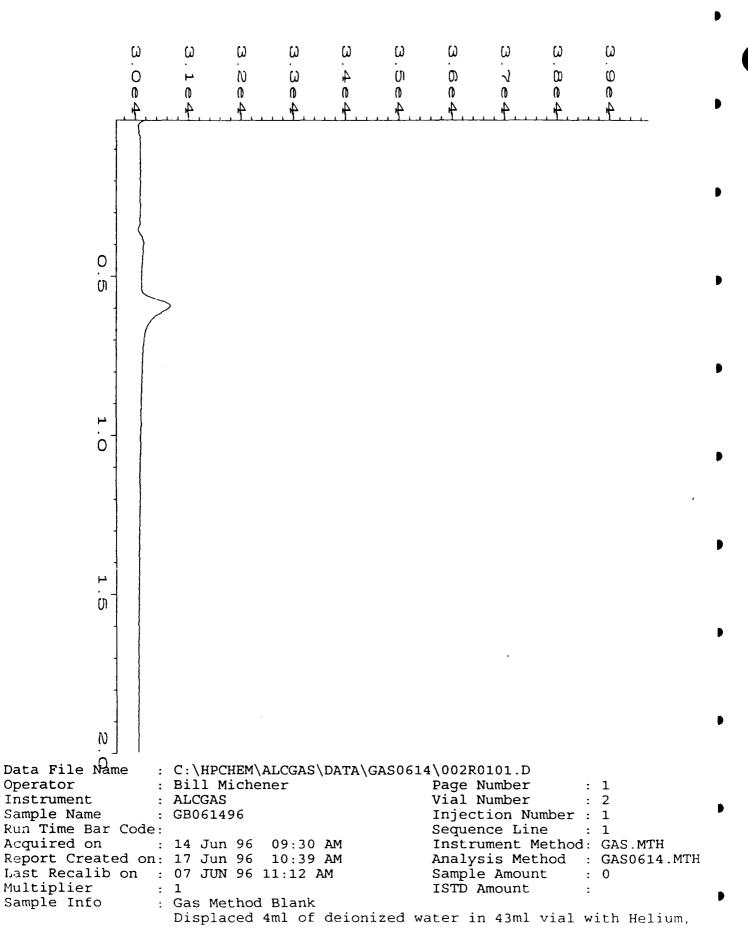
B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Approved

AF1829.XLS



RSKSOP-175 Gas Method

Methane, Ethane, Ethene Gas Matrix Spike / Matrix Spike Duplicate Report

: CPT-1D Client Sample No. Lab Sample No. **Date Sampled**

Date Received

Date Prepared Date Analyzed : 96-1829-01 : 6/4/96

Client Project No. Lab Work Order EPA Method No.

: Madison ANGB : 96-1829

: RSKSOP-175 : Water

: 6/5/96 : 6/14/96 : 6/14/96

Method Blank Lab File No's.

Matrix

: GB061496 : GAS0614017,018

E.A. MS/MSD Spike Source No. : 1719

	Spike	Sample	MS		QC
Compound	Added	Concentration	Concentration	MS	Limits
	(ug)	(ug)	(ug)	%REC	%REC
Methane Gas	500	51	349	60	40-89

	Spike	MSD			C	ıc
Compound	Added	Concentration	MSD	RPD	Lin	nits
	(ug)	(ug)	%REC		RPD	%REC
Methane Gas	500	349	60	0.2	0-24.4	40-89

RPD:	0	out of	(1)	outside limits
Spike Recovery:	0	out of	(2)	outside limits

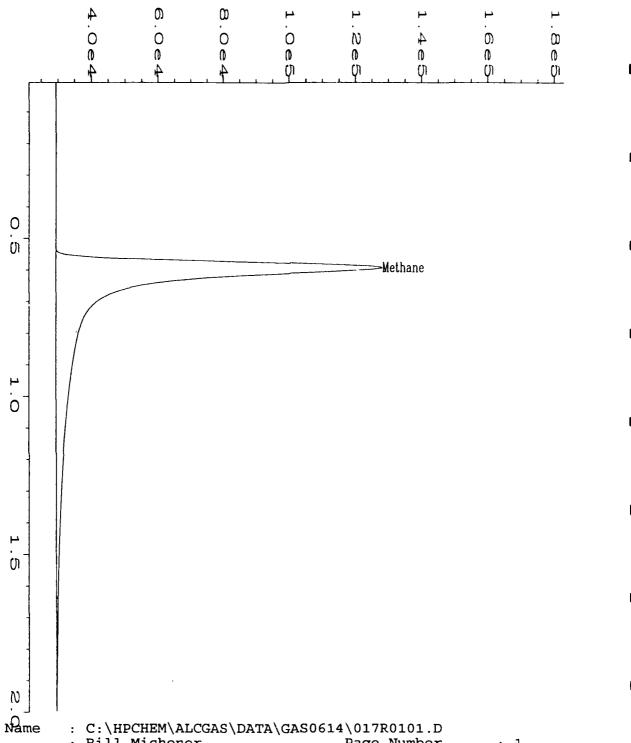
Notes

* = Values outside of QC limits. NA = Not analyzed/not available

Note: The Spike was made by taking the sample and displacing 4ml of headspace with a 1% methane gas and shaking the VOA for 5 minutes. Then injecting 50 ul from the headspace into the GC resulting in a theoretical concentration of 500 ug.

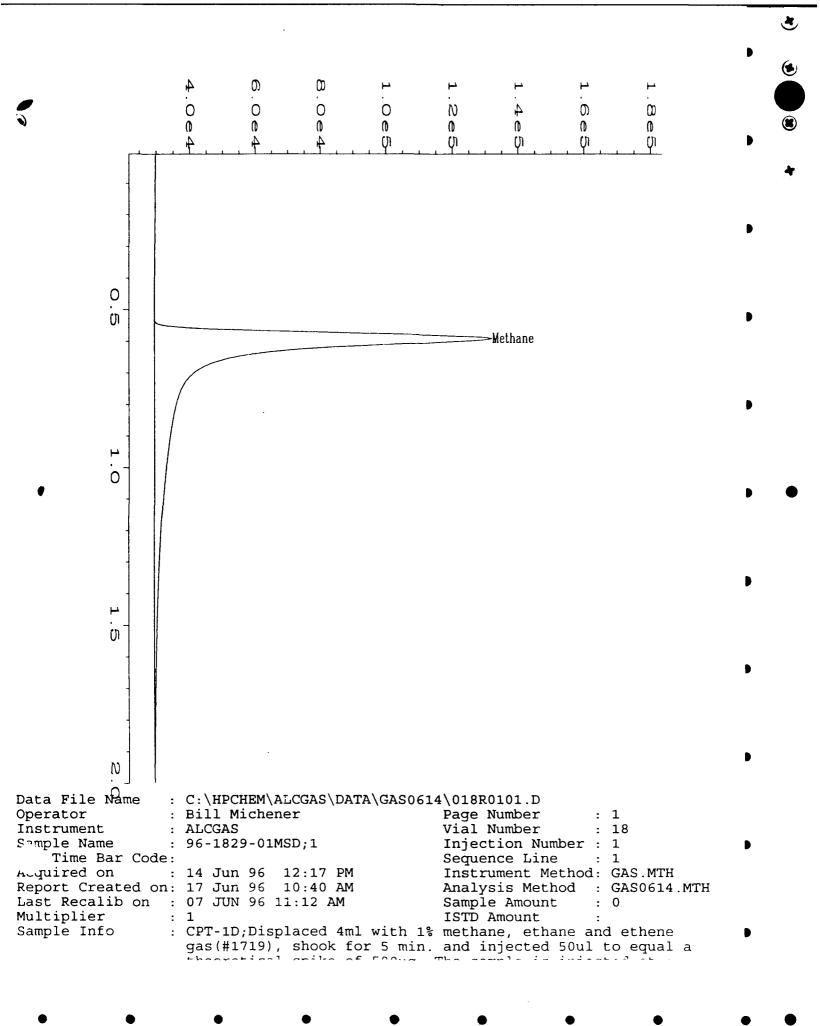
Approved

MS1829.XLS; 6/17/96



Data File Name Operator : Bill Michener Page Number Instrument : ALCGAS Vial Number : 17 Sample Name : 96-1829-01MS;1 Injection Number: 1 Run Time Bar Code: Sequence Line : 1 Acquired on : 14 Jun 96 12:12 PM Instrument Method: GAS.MTH Report Created on: 17 Jun 96 10:40 AM Analysis Method : GAS0614.MTH Last Recalib on : 07 JUN 96 11:12 AM Sample Amount Multiplier ISTD Amount

Sample Info : CPT-1D; Displaced 4ml with 1% methane, ethane and ethene gas (#1719), shook for 5 min. and injected 50ul to equal a







Client Sample Number	: CPT-1D	Client Project No.	: Madison ANGB
Lab Sample Number	: 96-1829-01	Lab Work Order	: 96-1829
Date Sampled	: 6/4/96	Dilution Factor	: 1.00
Date Received	: 6/5/96	Method	: RSKSOP-175
Date Extracted/Prepared	: 6/14/96	Matrix	: Water
Date Analyzed	: 6/14/96	Lab File No.	: GAS0614007

Compound Name	Cas Number	Sample Concentration mg/L	RL mg/L
Methane	74-82-8	0.090	0.002

Temperature	:	82.8 F	Saturation	Meth	0.02194
Amount Injected	:	0.5 ml	Concentration		
Total Volume of Sample	:	43 ml	Concentration	Meth	0.06775423
Head space created	:	4 ml	in Head Space		
Methane Area	:	510.227 ug			

Atomic weight(Methane) : _____ 16 g

Qualifiers

E = Extrapolated value.

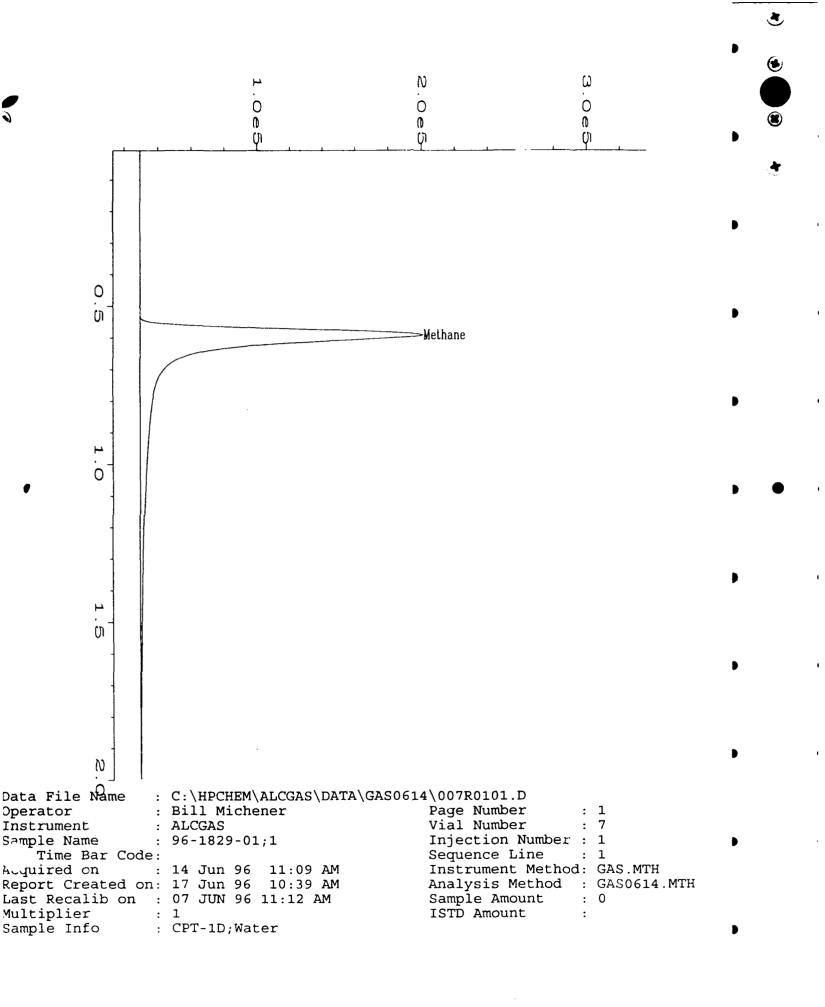
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

K Hollman Approved



Methane Report Form

Client Sample Number	: CPT-5D	Client Project No.	: Madison ANGB
Lab Sample Number	: 96-1829-02	Lab Work Order	: 96-1829
Date Sampled	: 6/4/96	Dilution Factor	: 50.00
Date Received	: 6/5/96	Method	: RSKSOP-175
Date Extracted/Prepared	: 6/14/96	Matrix	: Water
Date Analyzed	: 6/14/96	Lab File No.	: GAS0614008

		Sample	
Compound Name	Cas Number	Concentration	RL
		mg/L	mg/L
Methane	74-82-8	4.1	0.1

Temperature	:	82.9 F	Saturation	Meth	1.0031
Amount Injected	:	0.01 ml	Concentration		
Total Volume of Sample	:	43 mì	Concentration	Meth	3.09707542
Head space created	:	4 ml	in Head Space		
Methane Area	:	466.54 ug			

Atomic weight(Methane) : _____ 16 g

Qualifiers

E = Extrapolated value.

U = Compound analyzed for, but not detected.

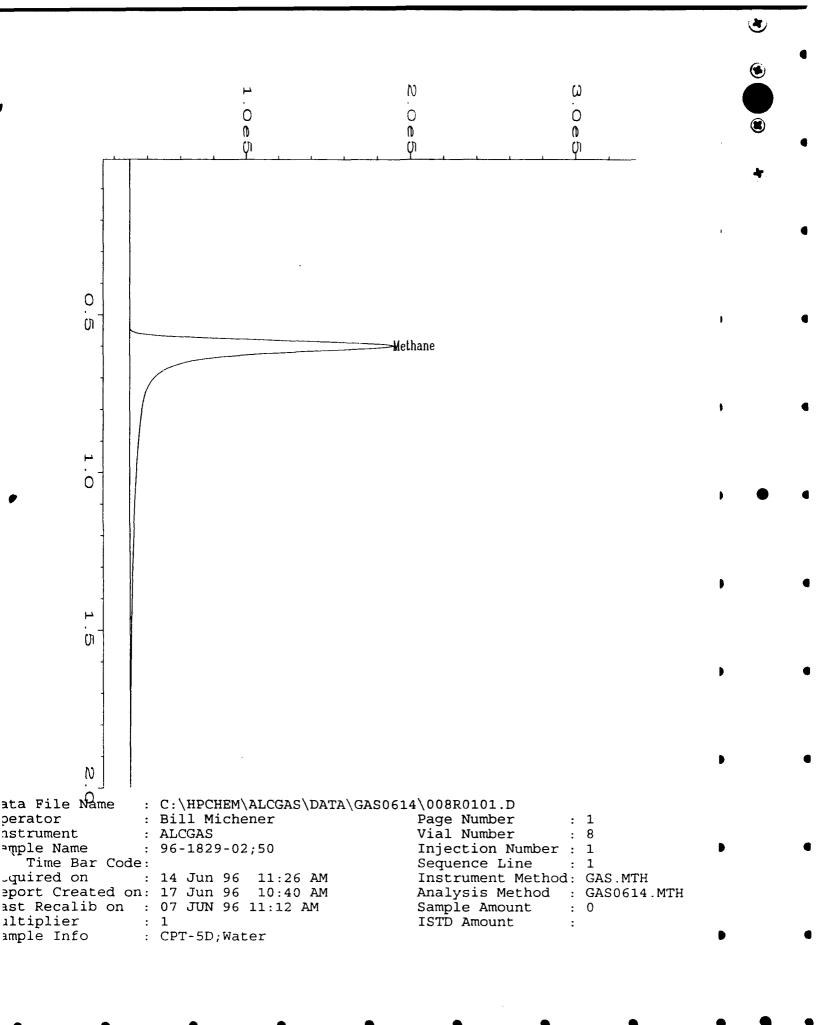
B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

Approved







Methane Report Form

Client Sample Number	: CPT-5S	Client Pr
Lab Sample Number	: 96-1829-03	Lab Wor
Date Sampled	: 6/4/96	Dilution (
Date Received	: 6/5/96	Method
Date Extracted/Prepared	· 6/14/96	Matrix

: 6/14/96

roject No. : Madison ANGB rk Order : 96-1829 Factor : 50.00 : RSKSOP-175

: Water Lab File No. : GAS0614009

		Sample		
Compound Name	Cas Number	Concentration	RL	
		mg/L	mg/L	
Methane	74-82-8	0.7	0.1	

Temperature	:	82.9 F	Saturation	Meth	0.16235
Amount Injected	:	0.01 ml	Concentration		
Total Volume of Sample	:	43 ml	Concentration	Meth	0.501384474
Head space created	:	4 ml	in Head Space		
Methane Area	:	75.528 ug			

Atomic weight(Methane) 16 g

Qualifiers

Date Analyzed

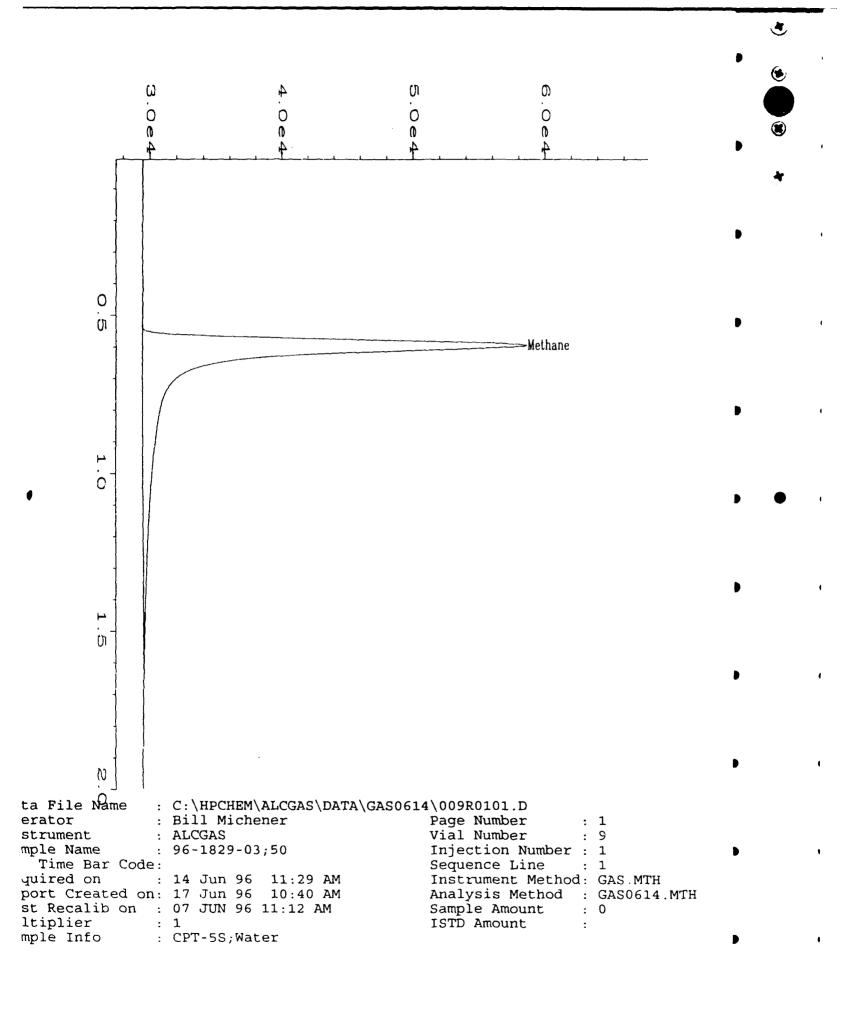
E = Extrapolated value.

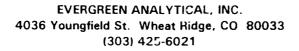
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.







Client Sample Number	: CPT-4D	Client Project No.	: Madison ANGB
Lab Sample Number	: 96-1829-04	Lab Work Order	: 96-1829
Date Sampled	: 6/4/96	Dilution Factor	: 50.00
Date Received	: 6/5/96	Method	: RSKSOP-175
Date Extracted/Prepared	: 6/14/96	Matrix	: Water
Date Analyzed	· 6/14/96	Lah File No	· GASO614010

		Sample	
Compound Name	Cas Number	Concentration	RL
		mg/L	mg/L
Methane	74-82-8	3.4	0.1

Temperature	:	83 F	Saturation	Meth	0.8257
Amount Injected	:	0.01 ml	Concentration		
Total Volume of Sample	:	43 ml	Concentration	Meth	2.548977 87
Head space created	:	4 ml	in Head Space		
Methane Area	:	384.046 ug			

Atomic weight(Methane) : _____ 16 g

Qualifiers

E = Extrapolated value.

U = Compound analyzed for, but not detected.

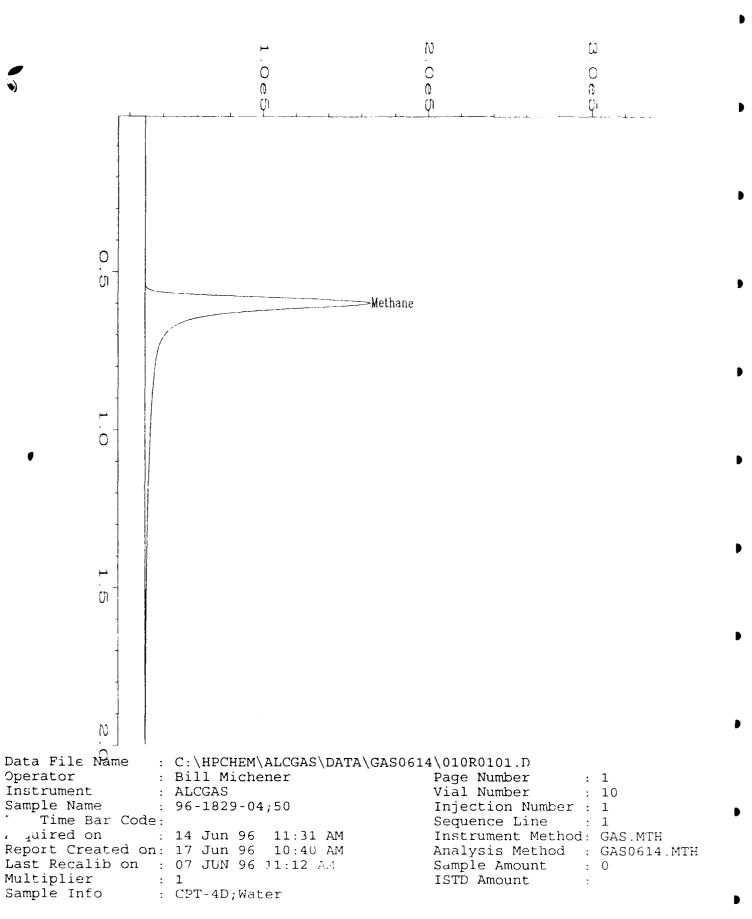
B = Compound also found in the plank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Applicat

Approved



Methane Report Form

Client Sample Number	: CPT-4D	Client Project No.	: Madison ANGB
Lab Sample Number	: 96-1829-04Dup	Lab Work Order	: 96-1829
Date Sampled	: 6/4/96	Dilution Factor	: 50.00
Date Received	: 6/5/96	Method	: RSKSOP-175
Date Extracted/Prepared	: 6/14/96	Matrix	: Water
Date Analyzed	: 6/14/96	Lab File No.	: GAS0614011

Compound Name	Cas Number	Concentration	RL
		mg/L	mg/L
Methane	74-82-8	3.5	0.1

Temperature	:	82.9 F	Saturation	Meth	0.8449
Amount Injected	;	0.01 ml	Concentration		_
Total Volume of Sample	:	43 ml	Concentration	Meth	2.60870883
Head space created	:	4 ml	in Head Space		
Methane Area	:	392.973 ug			

Atomic weight(Methane)	:	16 g
	·	3

Qualifiers

E = Extrapolated value.

U = Compound analyzed for, but not detected.

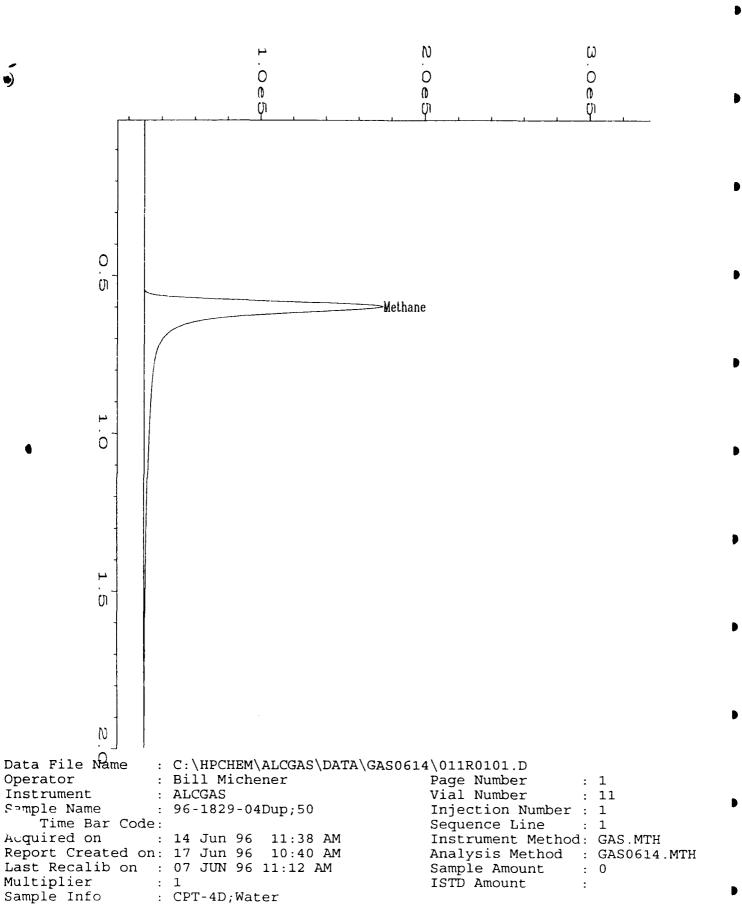
B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

Approved





Client Sample Number	: MW-13	Client Project No.	: Madison ANGB
Lab Sample Number	: 96-1829-05	Lab Work Order	: 96-1829
Date Sampled	: 6/4/96	Dilution Factor	: 1.00
Date Received	: 6/5/96	Method	: RSKSOP-175
Date Extracted/Prepared	: 6/14/96	Matrix	: Water
Date Analyzed	: 6/14/96	tab File No.	· GAS0614012

Compound Name	Cas Number	Concentration	RL
		mg/L	mg/L
Methane	74-82-8	0.083	0.002

Temperature	:	82.7 F	Saturation	Meth	0.0203
Amount Injected	:	0.5 ml	Concentration		
Total Volume of Sample	:	43 ml	Concentration	Meth	0.J6270229
Head space created	:	4 ml	in Head Space		
Methane Area	:	472.096 ug			

Atomic weight(Methane)	:	16 g
	·	

Qualifiers

E = Extrapolated value.

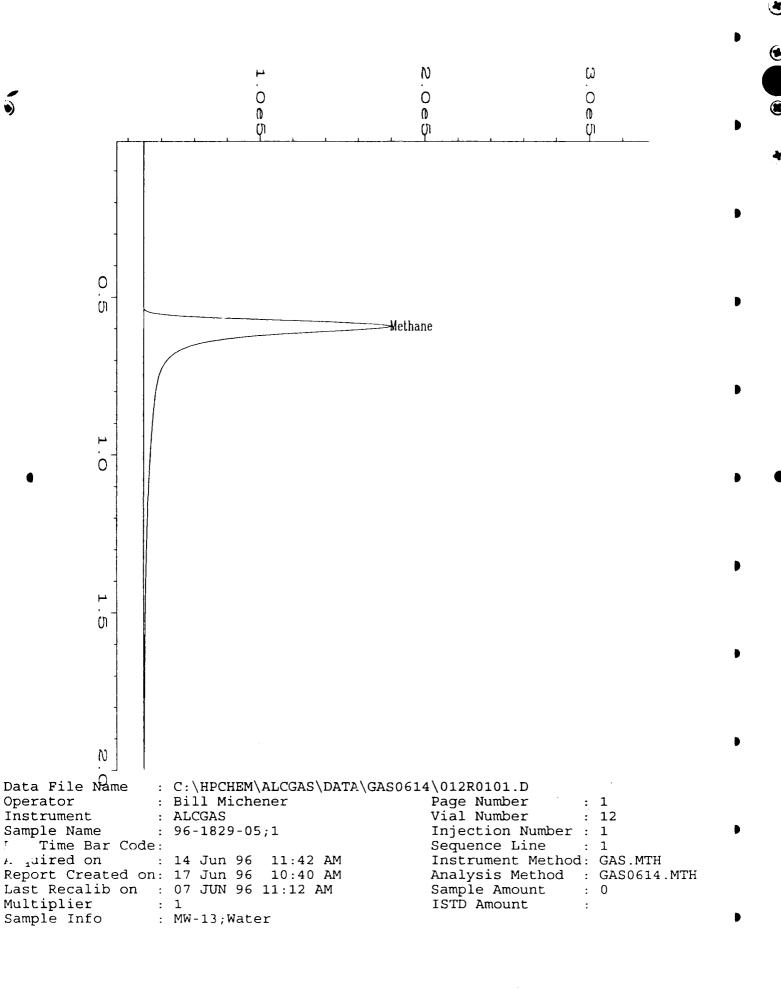
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Approved



Methane Report Form

Client Sample Number	: MW-12	Client Project No.	: Madison ANGB
Lab Sample Number	: 96-1829-06	Lab Work Order	: 96-1829
Date Sampled	: 6/4/96	Dilution Factor	: 1.00
Date Received	: 6/5/96	Method	: RSKSOP-175
Date Extracted/Prepared	: 6/14/96	Matrix	: Water
Date Analyzed	: 6/14/96	Lab File No.	: GAS0614013

Compound Name	Cas Number	Sample Concentration mg/L	RL mg/L
Methane	74-82-8	U	0.002

Temperature	:	82.9 F	Saturation	Meth	(
Amount Injected	:	0.5 ml	Concentration		
Total Volume of Sample	:	43 ml	Concentration	Meth	(
Head space created	:	4 ml	in Head Space		
Methane Area	:	0 ug			

Atomic weight(Methane) : _____ 16 g

Qualifiers

E = Extrapolated value.

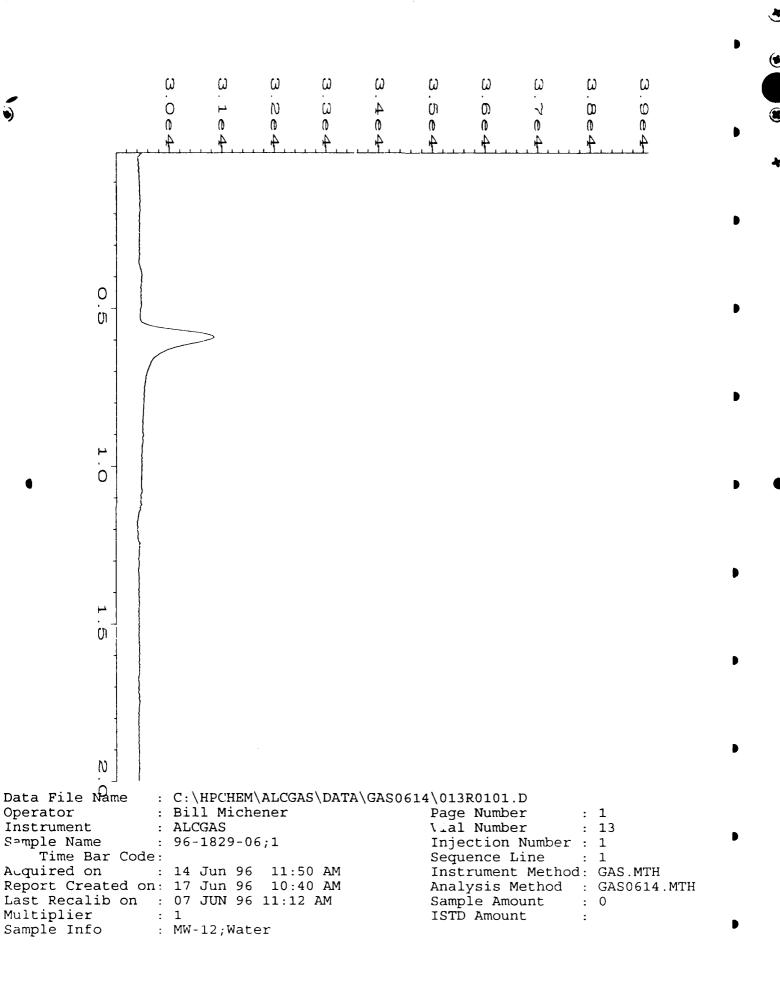
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

K. Hallman







Lab File No.

Client Sample Number	: CPT-20S	Client Project No.	: Madison ANGB
Lab Sample Number	96-1829-07	Lab Work Order	: 96-1829
Date Sampled	: 6/4/96	Dilution Factor	: 1.00
Date Received	: 6/5/96	Method	: RSKSOP-175
Date Extracted/Prepared	: 6/14/96	Matrix	: Water

: 6/14/96

		Sample		
Compound Name	Cas Number	Concentration	RL	
		mg/L	mg/L	
Methane	74-82-8	U	0.002	

Temperature	:	82.7 F	Saturation	Meth	1
Amount Injected	:	0.5 ml	Concentration		
Total Volume of Sample	:	43 ml	Concentration	Meth	
Head space created	:	4 mi	in Head Space		
Methane Area	:	O ug			

Atomic weight(Methane) : 16 g

Qualifiers

Date Analyzed

E = Extrapolated value.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

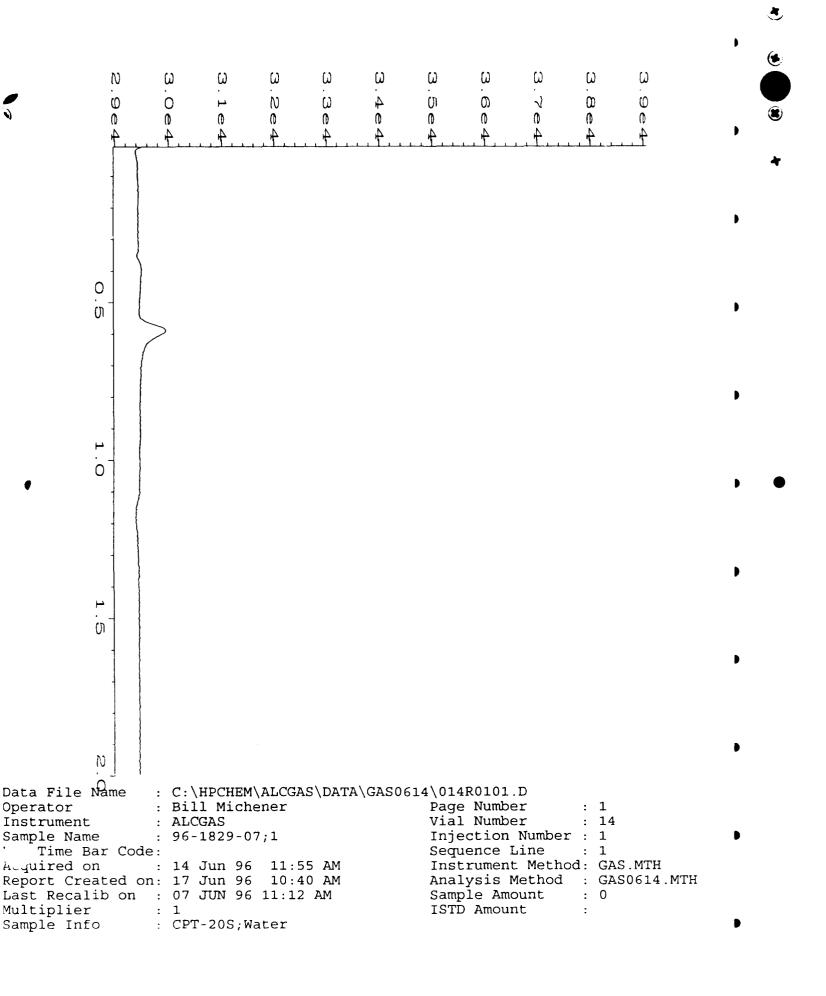
RL = Reporting Limit.

NA = Not Available/Not Applicable.

K Hollman Approved

: GAS0614014

AF1829 XLS



Methane Report Form

Client Sample Number	: CPT-19S	Client Project No.	: Madison ANGB
Lab Sample Number	: 96-1829-08	Lab Work Order	: 96-1829
Date Sampled	: 6/4/96	Dilution Factor	: 1.00
Date Received	: 6/5/96	Method	: RSKSOP-175
Date Extracted/Prepared	: 6/14/96	Matrix	: Water
Date Analyzed	: 6/14/96	Lab File No.	: GAS0614016

Compound Name	Cas Number	Sample Concentration mg/L	RL mg/L
Methane	74-82-8	0.063	0.002

Temperature	:	82.6 F	Saturation	Meth	0.0153°
Amount Injected	;	0.5 ml	Concentration		
Total Volume of Sample	:	43 ml	Concentration	Meth	0.047305196
Head space created	:	4 ml	in Head Space		
Methane Area	:	356.103 ug			

Atomic weight(Methane) : _____ 16 g

Qualifiers

E = Extrapolated value.

U = Compound analyzed for, but not detected.

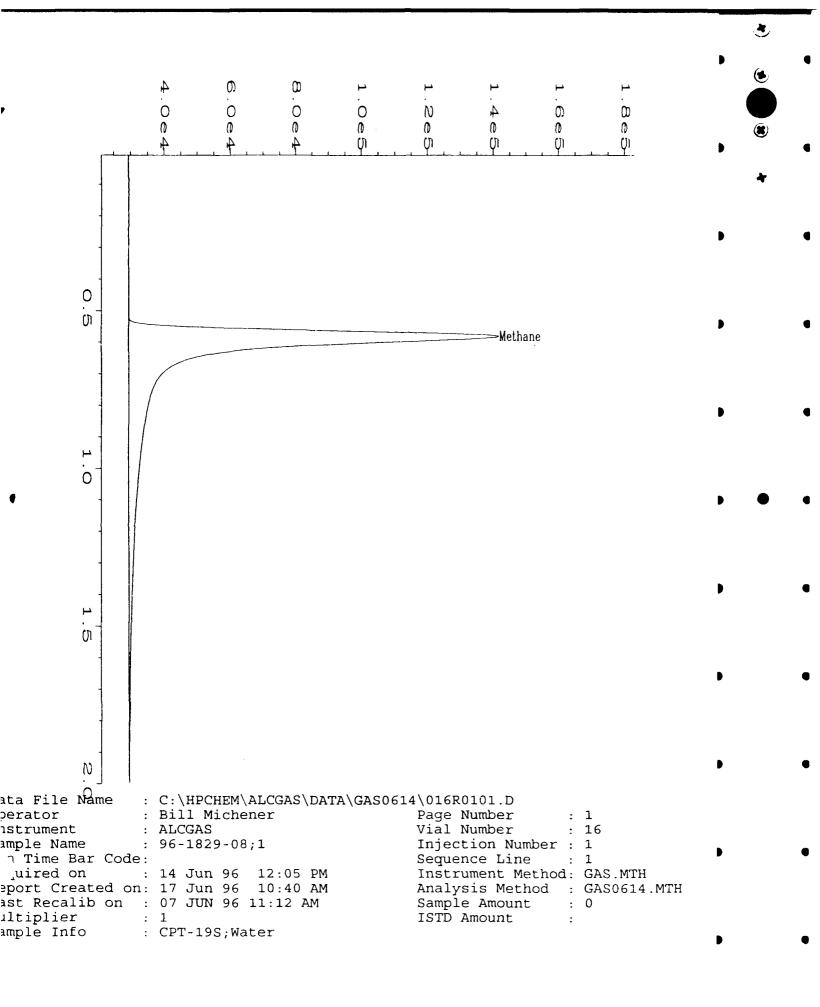
B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

Approved



4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

Anion Report

				Madison ANGB
Date Sampled	: 6/04/96	Client Project ID.	:	729691.09110
Date Received	: 6/05/96	Lab Project Number	:	96-1829
Date Prepared	: 6/05/96	Method	;	EPA 300.0
Date Analyzed	: 6/05/96	Detection Limit	:	0.25 mg/L

Evergreen Sample #	Client Sample ID.	<u>Matrix</u>	Chloride mg/L	Dilution <u>Factor</u>
96-1829-01	CPT-1D	Water	16.0	1
96-1829-02	CPT-5D	Water	12.7	1
96-1829-03	CPT-5S	Water	33.4	1
96-1829-04	CPT-4D	Water	9.5	1
96-1829-05	MW-13	Water	3.7	1
96-1829-06	MW-12	Water	6.6	1
96-1829-07	CPT-20S	Water	4.0	1
96-1829-08	CPT-19S	Water	40.7	10
Method Blank	(6/05/96)		< 0.25	

Quality Assurance

	<u> </u>	Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
96-1829-01	CPT-1D Matrix Spike	10.0	16.0	25.6	95
96-1829-01	CPT-1D Matrix Spike Du	p 10.0	16.0	25.3	93
MS/MSD RP	D	·			2.4

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4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

Anion Report

				Madison ANGB
Date Sampled	: 6/04/96	Client Project ID.	:	729691.09110
Date Received	: 6/05/96	Lab Project Number	:	96-1829
Date Prepared	: 6/05/96	Method	:	EPA 300.0
Date Analyzed	: 6/05/96	Detection Limit	:	0.076 mg/L

Evergreen Sample #	Client Sample ID.	<u>Matrix</u>	Nitrite-N mg/L	Dilution <u>Factor</u>
96-1829-01	CPT-1D	Water	<0.076	1
96-1829-02	CPT-5D	Water	<0.076	1
96-1829-03	CPT-5S	Water	<0.076	1
96-1829-04	CPT-4D	Water	<0.076	1
96-1829-05	MW-13	Water	<0.076	1
96-1829-06	MW-12	Water	<0.076	1
96-1829-07	CPT-20S	Water	<0.076	1
£6-1829-08	CPT-19S	Water	<0.076	1
Method Blank	(6/05/96)	Quality Assuran	<0.076	

Quality	Assurance

	\$	Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
96-1829-01	CPT-1D Matrix Spike	10.0	<0.25	9.7	97
96-1829-01	CPT-1D Matrix Spike Du	p 10.0	<0.25	9.5	95
MS/MSD RP	Ď				2.9

^{• =} Quality assurance results reported as Nitrite (NO₂).

Analyst pm

4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

Anion Report

ANGB
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0
ı/L

Evergreen Sample #	Client Sample ID.	<u>Matrix</u>	<u>Nitrate-N</u> mg/L	Dilution <u>Factor</u>
96-1829-01	CPT-1D	Water	0.48	1
96-1829-02	CPT-5D	Water	< 0.056	1
96-1829-03	CPT-5S	Water	0.60	1
96-1829-04	CPT-4D	Water	0.084	1
96-1829-05	MW-13	Water	2.5	1
96-1829-06	MW-12	Water	33.1	10
96-1829-07	CPT-20S	Water	12.6	10
96-1829-08	CFT-19S	Water	0.09	1
Method Blank	(6/05/96)		< 0.056	

Quality Assurance *

	:	Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
96-1829-01	CPT-1D Matrix Spike	10.0	2.;	11.2	91
96-1829-01	CPT-1D Matrix Spike Du	p 10.0	2.1	10.9	88
MS/MSD RP	D				3.7

Quality assurance results reported as Nitrate (NO₃).

Analyst

4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

Anion Report

				Madison ANGB
Date Sampled	: 6/04/96	Client Project ID.	:	729691.09110
Date Received	: 6/05/96	Lab Project Number	:	96-1829
Date Prepared	: 6/05/96	Method	:	EPA 300.0
Date Analyzed	: 6/05/96	Detection Limit	:	0.25 mg/L

Evergreen Sample #	Client Sample ID.	<u>Matrix</u>	Sulfate mg/L	Dilution <u>Factor</u>
96-1829-01	CPT-1D	Water	33.6	1
96-1829-02	CPT-5D	Water	0.51	1
96-1829-03	CPT-5S	Water	17.5	1
96-1829-04	CPT-4D	Water	2.2	1
96-1829-05	MW-13	Water	8.3	1
96-1329-06	MW-12	Water	48.7	10
96-1829-07	CPT-20S	Water	31.1	1
96-1829-08	CPT-19S	Water	30.8	1
Method Blank	(6/05/96)		<0.25	

Quality Assurance

	<u>s</u>	Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
96-1829-01	CPT-1D Matrix Spike	10.0	33.6	45.2	116
96-1829-01	CPT-1D Matrix Spike Duj	o 10.0	33.6	45.0	114
MS/MSD RP	D D				1.7

Analyst An

4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

Analysis Report

Mac	lison	ANGB

 Date Sampled
 : 6/4/96
 Client Project ID.
 : 729691.09110

 Date Received
 : 6/5/96
 Lab Project Number
 : 96-1829

 Date Prepared
 : 6/6/96
 Method
 : EPA 310.1

Date Analyzed : 6/6/96 Detection Limit : 5.0 mg CaCO₃/L

Evergreen Sample #	Client Sample ID.	<u>Matrix</u>	Total <u>Alkalinity</u> (mg CaCO ₃ /L)	Dilution <u>Factor</u>
96-1829-04	CPT-4D	Water	398	1
96-1829-05	MW-13	Water	333	1
9 6-1829 - 08	CPT-19S	Water	528	1

Method Blank (6/6/96)

Quality Assurance

< 5.0

Reference	True Value (mgCaCO ₃ /L)	Result (mgCaCO ₃ /L)	% Recovery
ERA Alkalinity	120	124	103

Sac wpell
Analyst

Evergreen Analytical, Inc.

WORK ORDER Summary

Client Project ID: MADISON ANGB

07-Jun-96

Parsons Engineering Science Report To: Dave Moutoux

Phone: (303) 831-8100

1700 Broadway Suite 900 Denver, CO 80290

FAX: (303) 831-8208

Comments:

Sample ID	Client Sample ID	Analysis #	Matrix	Loc	Collection	Received	Due	нт
96-1849-01H	MW-11	ANIONS by ION CHROMATOGRAPHY CI,NO2,NO3,SO4	Water	CL2	96-Inn-96	96-Inn-90	20-Jun-96	96-un[-/0
96-1849-02H	WW-9	ANIONS by ION CHROMATOGRAPHY CI,NO2,NO3,SO4					20-Jun-96	07-Jun-96
96-1849-03H	MW-10	ANIONS by ION CHROMATOGRAPHY CI,NO2,NO3,SO4					20-Jun-96	07-Jun-96
96-1849-04H	MW-30	ANIONS by ION CHROMATOGRAPHY CI,NO2,NO3,SO4					20-Jun-96	96-unf-20
96-1849-05H	MW-8	ANIONS by ION CHROMATOGRAPHY CI,NO2,NO3,SO4					20-Jun-96	07-Jun-96
96-1849-06H	MW-22S	ANIONS by ION CHROMATOGRAPHY CI,NO2,NO3,SO4	•				20-Jun-96	07-Jun-96
96-1849-07F	MW-22D	ANIONS by ION CHROMATOGRAPHY CI,NO2,NO3,SO4					20-Jun-96	07-Jun-96
H80-6+81-96	MW-32	ANIONS by ION CHROMATOGRAPHY CI,NO2,NO3,SO4					20-Jun-96	96-unf-20
H60-6+81-96	MW-17	ANIONS by ION CHROMATOGRAPHY CI,NOZ,NO3,SO4					20-Jun-96	07-Jun-96
96-1849-10H	MW-25	ANIONS by ION CHROMATOGRAPHY CI,NO2,NO3,SO4					20-Jun-96	07-Jun-96
H11-6+81-96	CPT-18S	ANIONS by ION CHROMATOGRAPHY CI,NO2,NO3,SO4					20-Jun-96	07-Jun-96
96-1849-01A	MW-11	BTEX + TVPH (Parsons List)		2			11-Jun-96	19-Jun-96
96-1849-02A	WW-9	BTEX + TVPH (Parsons List)					11-Jun-96	19-Jun-96
96-1849-03A	MW-10	BTEX + TVPH (Parsons List)					11-Jun-96	19-Jun-96
96-1849-04A	MW-30	BTEX + TVPH (Parsons List)					11-Jun-96	19-Jun-96
96-1849-05A	MW-8	BTEX + TVPH (Parsons List)					11-Jun-96	19-Jun-96
96-1849-06A	MW-22S	BTEX + TVPH (Parsons List)					11-Jun-96	19-Jun-96
96-1849-07A	MW-22D	BTEX + TVPH (Parsons List)					11-Jun-96	19-Jun-96
96-1849-08A	MW-32	BTEX + TVPH (Parsons List)					11-Jun-96	19-Jun-96
# - Special list. 5	# - Special list. See sample comments or test information	information.				d	Page 1 of 2	2

^{# -} Special list. See sample comments or test information. III - Holding Time expiration date.



Evergreen Analytical, Inc.

WORK ORDER Summary

Report To: Dave Moutoux

Client Project ID: MADISON ANGB

07-Jun-96

Parsons Engineering Science 1700 Broadway Suite 900 Denver, CO 80290

Phone: (303) 831-8100 **FAX:** (303) 831-8208

Comments:

Sample 1D	Client Sample ID	Analysis	##	Matrix	ટ્ર	Loc Collection	Received	Due	НТ
96-1849-09A	MW-17	BTEX + TVPH (Parsons List)		Water	2	96-Jun-96	96-Jun-90	11-Jun-96 19-Jun-96	19-Jun-96
96-1849-1CA	MW-25	BTEX + TVPH (Parsons List)						11-Jun-96 19-Jun-96	19-Jun-96
96-1849-11A	CPT-18S	BTEX + TVPH (Parsons List)						11-Jun-96 19-Jun-96	19-Jun-96
96-1849-12A	Field Blank	BTEX + TVPH (Parsons List)						11-Jun-96 19-Jun-96	19-Jun-96
96-1849-01E	MW-11	Methane						20-Jun-96 19-Jun-96	19-Jun-96
96-1849-02E	MW-9	Methane						20-Jun-96 19-Jun-96	19-Jun-96
96-1849-03E	MW-10	Methane						20-Jun-96 19-Jun-96	19-Jun-96
96-1849-04E	MW-30	Methane						20-Jun-96 19-Jun-96	19-Jun-96
96-1849-05E	MW-8	Methane						20-Jun-96 19-Jun-96	19-Jun-96
96-1849-06E	MW-22S	Methane						20-Jun-96 19-Jun-96	19-Jun-96
96-1849-07D	MW-22D	Methane						20-Jun-96 19-Jun-96	96-unf-6
96-1819-08E	MW-32	Methane						20-Jun-96 19-Jun-96	19-Jun-96
96-1849-09E	MW-17	Methane						20-Jun-96 19-Jun-96	19-Jun-96
96-1849-10E	MW-25	Methane						20-Jun-96 19-Jun-96	19-Jun-96
96-1849-11E	CPT-18S	Methane						20-Jun-96 19-Jun-96	19-Jun-96
96-1849-021	MW-9	TEPH (JP-4)			CL2			11-Jun-96 19-Jun-96	19-Jun-96
96-1849-05J	MW-8	TEPH (JP-4)						11-Jun-96 19-Jun-96	19-Jun-96
96-1849-031	MW-10	TOTAL ALKALINITY						20-Jun-96 19-Jun-96	19-Jun-96
140-6481-96	MW-30	TOTAL ALKALINITY						20-Jun-96 19-Jun-96	19-Jun-96
96-1849-051	MW-8	TOTAL ALKALINITY						20-Jun-96 19-Jun-96	19-Jun-96
101-6481-96	MW-25	TOTAL ALKALINITY						20-Jun-96 19-Jun-96	19-Jun-96

Page 20

^{# =} Spec ' See sample comments or test information. HT = I: I'me expiration date.

CHAIN OF CUSTODY RECORD / ALYTICAL SERVICES REQUEST

Page 1 of 2 CLIENT CONTACT (print) CRVE MOUTO X PROJECT I.D. MCLISCT ANCR EAL. QUOTE # PO # TURNAROUND REQUIRED D STD (2 wks) STD UST (3 day) Onher (Specify) *** Other (Specify)	EAL use only Do not write	in shaded area EAL Project # 16-1849, Custodian MAC EAL Sample No.	O1 A-H	1 02 A-I	03 A T		05 A-H	- V	# - 4 8 # - 4 8		Location 2, CL 2	Container Size 400/125	0 CHY NIA) (LA		Received by. (Signature) Date Time
CLIENT CONTACT (pnn) PROJECT I.D. MCCLLS EAL. QUOTE # TURNAROUND REQUIRED*	REQUESTED 📡	Total Metals Delow) Dissolved Metals Delow)	X	XX	XXX	× 5 × >	\ \ \	× ×	× × × × × × × × × × × × × × × × × × ×	XXX	F64 I	110/ 125 259	one T'/H + one	Broken.	Date/Time
Evergreen Analytical Inc. 4036 Youngfield St. Wheat Ridge, Colorado 80033 (303) 425-6021 FAX (303) 425-6854 (800) 845-7400 FAX RESULTS Y / N	ANALYSIS REC	PCB Screen BTEX 8020/602 (circle)/MTBE (circle) TAPH 8015mod. (Gasoline)	X	ХХХ	7	> > > >	< ×	×	××	┼─┤		\$	SO-WWX	(00'd	Relinquished by
Evergreen 4 **M**		TCLP VOA/BNA/PesVHeib/Metals VOA 8260/624/524.2 (circle) BNA 8270/625 (circle) Pesticides 8080/608 (circle) Pest/PC8s 8080/608 (circle)										-	nerged 4	all May May The	
8126 21 8020 831 8100 FAX# 831-	MATRIX	SAMPLED TIME SAMPL	6/5/96 8-45 12 X	X 6 2 8 7/5/2	6/5/96 10:00 9 X	65/96 10 15 9 X	5 00	196 1430	1,5/4, 1,530 B. X	6/5/96/16CO 9 X			ara	MCINCAN-COO	≥ `
Parts 1762 203 303	Thatter Scokes H	ergreen Analytical Cooler No 22 coler Received 27 Please PRIN all information: CLIENT SAMPLE DA IDENTIFICATION SAME	A7W-11	MW-9	MW-10	AW - 30	(1) W - C.	MW-22D	MW-32	MW-25	11:	DD:	nstructions: VC)C	* Vicens Curry	pinquished by (Signature)

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Page 2 of 2 Page 2 of 2 Po # Sto (2 wks) Sto UST (3 day) Other (Specity)	EAL use only Do not write	in shaded area EAL Custodian Custodian EAL Sample No.	11 4-14	12 4	-			Location 2 CLZ	- 4	104,330	
CLIENT CONTACT (print) PROJECT I.D. EAL. QUOTE #	ESTED	Circle & list metals below) Mymm Osciole & list metals below) Missing of the control of the c	XX						10 155 250 100h		
Evergreen Analytical Inc. 4036 Youngfield St. Wheat Ridge, Colorado 80033 (303) 425-6021 FAX (303) 425-6854 (800) 845-7400 FAX RESULTS Y / N	ANALYSIS REQUESTED	Pest/PCBs 8080/608/508 (circle) PCB Screen TYPH 418.1/Oil & Grease 413.1 (circle) TYPH 8015mod. (Gasoline) TOISI Medals-DW / WPDES / SW846 (Circle & list metals below) TOISI Medals-DW / MPDES / SW846 (Circle & list metals below)	Х	X				DD GIN	HON HON		The second of the second of the
Evergreen	RIX	Oii / Sludge TCLP VOA/BNA/Pest/Herb/Metals VOA 8260/624/524.2 (circle) BNA 8270/625 (circle)									, and the state of
ZIP FAX #	MATRIX	Mo. of Containers Water-Drinking/Discharge/caround (circle) Soil / Solid	1650 8 X	1400 / X							\$ 0. 4.1 C1 2.1
STATE STATE	LAWA KOTHO	ved	185 <i>[6]5/</i> 9(Blunk 6/5/Plk							
ADDRESS CITY PHONE#	(pr.nt)	Evergreen Analytical Cooler No. Cooler Received Please PR all informat CLIENT SAMPLE IDENTIFICATION S	1-1d.)	Fidd E				HĪ	DD:	Instructions	

Methods 602/8020 and 5030/8015 Modified Data Report

Client Sample Number

: MW-8

Client Project Number

Madison ANGB

Lab Sample Number

: 96-1849-05

Lab Work Order

96-1849

Date Sampled **Date Received** : 6/5/96

Matrix

WATER

Date Prepared

: 6/6/96

Lab File Number(s)

MB060696-W

FID Dilution Factor

: 6/6/96 : 100

Method Blank

TVBX0605038

PID Dilution Factor : 100

		Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6/6/96	23	10	mg/L
Benzene	71-43-2	6/6/96	4900	40	ug/L
Toluene	108-88-3	6/6/96	U	40	ug/L
Chiorobenzene	108-90-7	6/6/96	U	40	ug/L
Ethyl Benzene	100-41-4	6/6/96	160	40	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/6/96	2300	40	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/6/96	230	40	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/6/96	600	40	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/6/96	400	40	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/6/96	98	50	ug/L
●iD Surrogate Recovery:		96%	<u> </u>	70%-130%	(Limits)
PID Surrogate Recovery:		105%		70%-128%	(Limits)

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

Comments:		 	

QUALIFIERS and DEFINITIONS:

- E = Extrapolated value. Value exceeds calibration range.
- U = Compound analyzed for, but not detected.
- B = Compound also found in the blank.
- J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.
- RL = Reporting Limit.
- NA = Not Available/Not Applicable.
- PID = Photoionization detector.
- FID = Flame ionization detector.
- TVH = Total Volatile Hydrocarbons.

Approved

TVBP1849.XLS; 6/10/96; 6

Evergreen Analytical Sample Receipt/Ch	heck-in Re	cord	
Date & Time Rec'd: 11:00 6/6/46 Shipped V	ia: Fed A	Fx	
Client: Parsons	Airbill # i:	f applicat	ie)
Client Project ID(s): Malison ANGB			
EAL Project #(s):96-1849 EAL C	cooler(s):	\bigcirc	N
Cooler# _277		· ········	
Ice packs (2) N Y N Y N Y	N	Y N	
Temperature °C 12			
<pre>1. Custody seal(s) present: Seals on cooler intact Seals on bottle intact</pre>	Y	<u>х,</u>	N/A ×
2. Chain of Custody present:	<u>×</u>		
3. Samples Radioactive: (Comment on COC if > 0.5mr/h)		X	
4. Containers broken or leaking: (Comment on COC if Y)	_X		
5. Containers labeled:	<u> </u>		
6. COC agrees w/ bottles received: (Comment on COC if N)	X		
7. COC agrees w/ labels: (Comment on COC if N)	X		
8. Headspace in vials-waters only: (Comment on COC if Y)	X	<u> </u>	
9. VOA samples preserved:			<u>×</u>
<pre>10. pH measured on metals, cyanide or phenolics List discrepancies *Non-EAL provided containers only, water sample</pre>			
11. Metal samples present:			
Total , Dissolved , TCLP		,	
D or PD to be filtered: T,TR,D,PD to be Preserved:		<u>×</u>	
12. Short holding times: Specify parameters		X_	
13. Multi-phase sample(s) present:			
14. COC signed w/ date/time:	X_	<u></u>	
Comments:			
(Additional comments on back)			
Custodian Signature/Date: Martin Kongo	es e	6-6-91	6

EVERGREEN ANALYTICAL, INC. 4036 Youngfield St. Wheat Ridge, CO 80033

(303) 425-6021

Methods 602/8020 and 5030/8015 Modified Data Report **Method Blank Report**

Method Blank Number

: MB060696-W

Client Project Number

Madison ANGB

Date Prepared

: 6/5/96

Lab Work Order

96-1849

Dilution Factor

: 1.0

Matrix

WATER

Lab File Number

TVBX0605030

		Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6/6/96	U	0.1	mg/L
Benzene	71-43-2	6/6/96	U	0.4	ug/L
Toluene	108-88-3	6/6/96	U	0.4	ug/L
Chlorobenzene	108-90-7	6/6/96	U	0.4	ug/L
Ethyl Benzene	100-41-4	6/6/96	U	0.4	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/6/96	U	0.4	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/6/96	Ú	0.4	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/6/96	U	0.4	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/6/96	U	0.4	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/6/96	U	0.5	ug/ L
D Surrogate Recovery:	1	98%	<u> </u>	70%-130%	(Limits)
PID Surrogate Recovery:		106%		70%-128%	(Limits)

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

Comments:				
	-		 	
				

QUALIFIERS and DEFINITIONS:

E = Extrapolated value. Value exceeds calibration range.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.

RL = Reporting Limit.

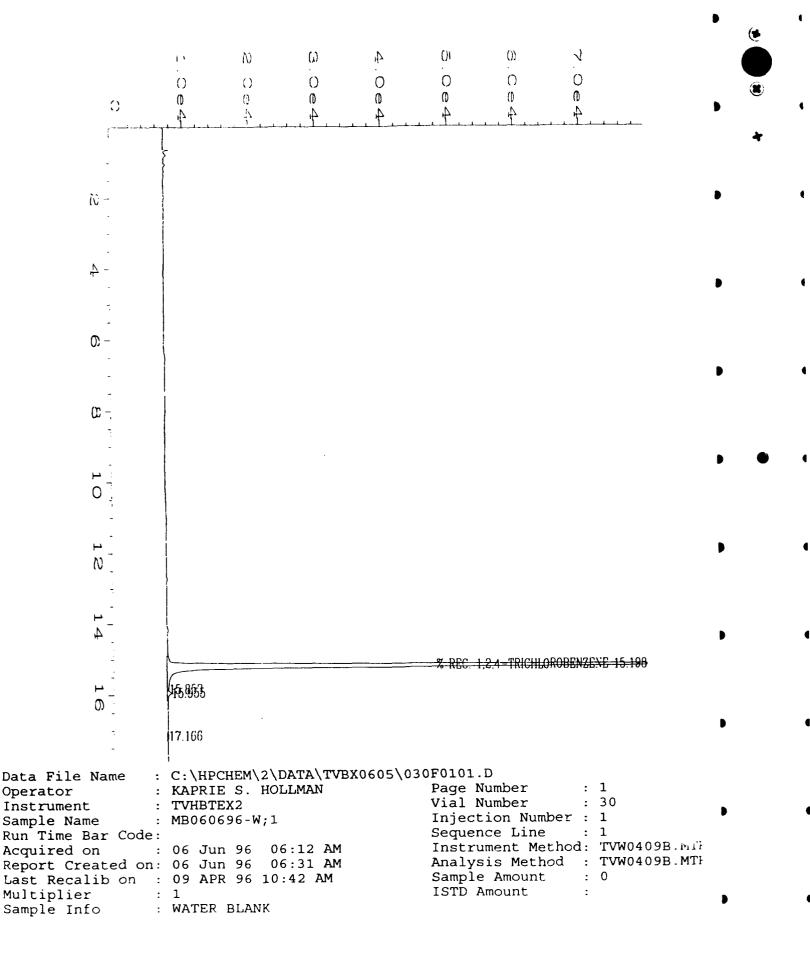
NA = Not Available/Not Applicable.

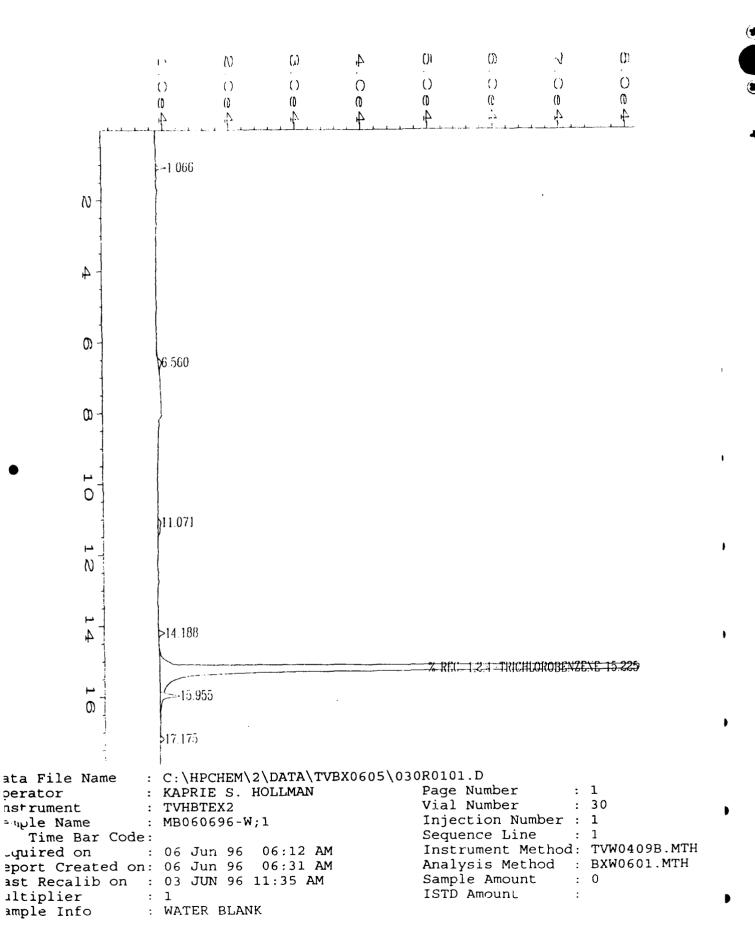
PID = Photoionization detector.

FID = Flame ionization detector.

TVH = Total Volatile Hydrocarbons.

TVBP1849 XLS; 6/7/96; 1



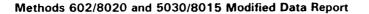


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Client Sample Number

: MW-11

Client Project Number

Madison ANGB

Lab Sample Number

: 96-1849-01

Lab Work Order

96-1849

Date Sampled

: 6/5/96

Matrix

WATER

Date Received

: 6/6/96

Lab File Number(s)

MB060696-W

Date Prepared FID Dilution Factor : 6/6/96

Method Blank

TVBX0605047

: 1.0

PID Dilution Factor : 1.0

		Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6///96	U	0.1	mg/L
Benzene	71-43-2	6/7/96	U	0.4	ug/L
Toluene	108-88-3	6/7/96	U	0.4	ug/L
Chlorobenzene	108-90-7	6/7/96	U	0.4	ug/L
Ethyl Benzene	100-41-4	6/7/96	U	0.4	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/7/96	U	0.4	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/7/96	U	0.4	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/7/96	U	0.4	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/7/96	U	0.4	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/7/96	U	0.5	ug/L
FID Surrogate Recovery:	<u> </u>	96%	<u> </u>	70%-130%	(L:s)
PID Surrogate Recovery:		105%		70%-128%	(Limits)

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

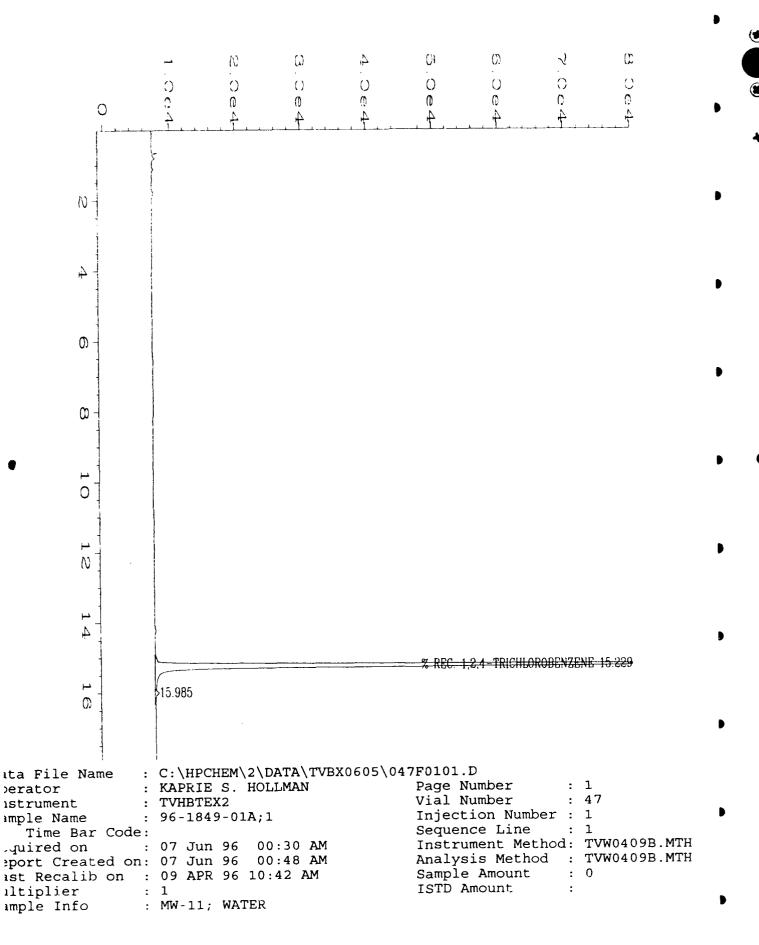
Comments:	 		

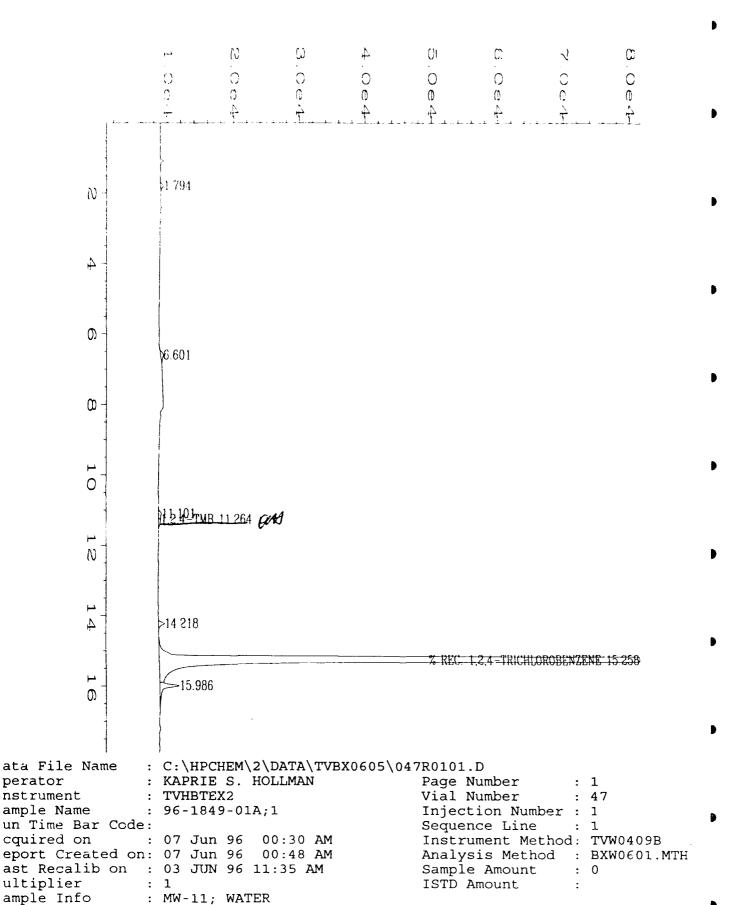
QUALIFIERS and DEFINITIONS:

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- U = Compound analyzed for, but not detected.
- **B** = Compound also found in the blank.
- J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.
- RL = Reporting Limit.
- NA = Not Available/Not Applicable.
- **PID** = Photoionization detector.
- FID = Flame ionization detector.
- TVH = Total Volatile Hydrocarbons.

Approved

TVBP1849 XLS 6/10/96 2





Methods 602/8020 and 5030/8015 Modified Data Report

Client Sample Number

: MW-9

Client Project Number

Madison ANGB

Lab Sample Number

: 96-1849-02

Lab Work Order Matrix

96-1849

Date Sampled Date Received : 6/5/96

Lab File Number(s)

WATER

Date Prepared

: 6/6/96 : 6/6/96

MB060696-W

FID Dilution Factor PID Dilution Factor : 1.0 : 1.0 Method Blank

TVBX0605045

		Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL.	Units
TVH-Gasoline		6/6/96	1.8	0.1	mg/L
Benzene	71-43-2	6/6/96	2.1	0.4	ug/L
Toluene	108-88-3	6/6/96	U	0.4	ug/L
Chlorobenzene	108-90-7	6/6/96	U	0.4	ug/L
Ethyl Benzene	100-41-4	6/6/96	4.2	0.4	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/6/96	25	0.4	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/6/96	46	0.4	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/6/96	150	0.4	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/6/96	66	0.4	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/6/96	71	0.5	ug/L

ID Surrogate Recovery: 99% 70%-130% (Limits) PID Surrogate Recovery: 106% 70%-128% (Limits)

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

Comments:			

QUALIFIERS and DEFINITIONS:

E = Extrapolated value. Value exceeds calibration range.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

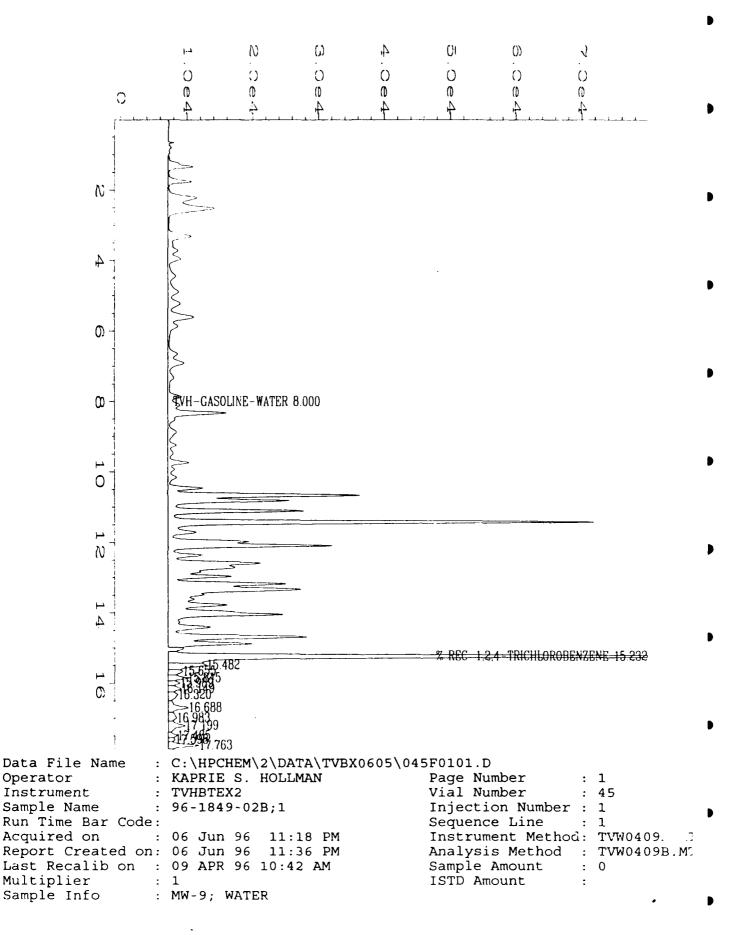
PID = Photoionization detector.

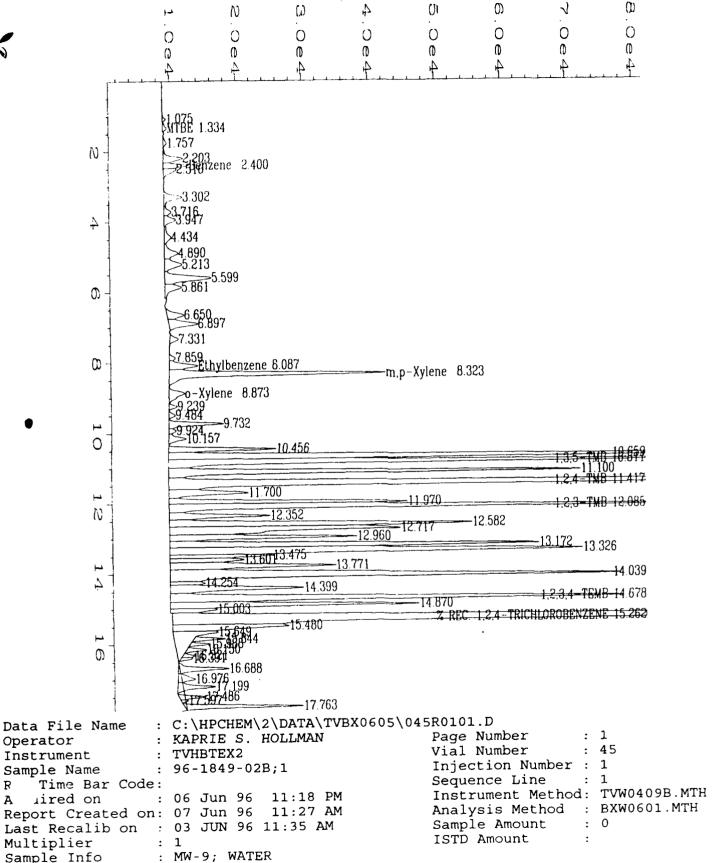
FID = Flame ionization detector.

TVH = Total Volatile Hydrocarbons.

Approved

TVRP1849 XIS-6/10/96-3





Operator

Sample Info

Multiplier

Methods 602/8020 and 5030/8015 Modified Data Report

Date Received : 6/6/96 Lab File Number(s) : TVBX0605046

Date Prepared : 6/6/96 Method Blank : MB060696-W

FID Dilution Factor : 10
PID Dilution Factor : 10

		Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6/6/96	5.0	1.0	mg/L
Benzene	71-43-2	6/6/96	120	4.0	ug/L
Toluene	108-88-3	6/6/96	Ú	4.0	ug/L
Chlorobenzene	108-90-	6/6/96	U	4.0	ug/L
Ethyl Benzene	100-41-4	6/6/96	94	4.0	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/6/96	530	4.0	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/6/96	67	4.0	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/6/96	200	4.0	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/6/9€	110	4.0	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/6/96	38	5.0	ug/L
FID Surrogate Recovery:		96%	<u> </u>	70%-130%	(Lim
PID Surrogate Recovery:		104%		70%-128%	(Limits)

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

Comments:			

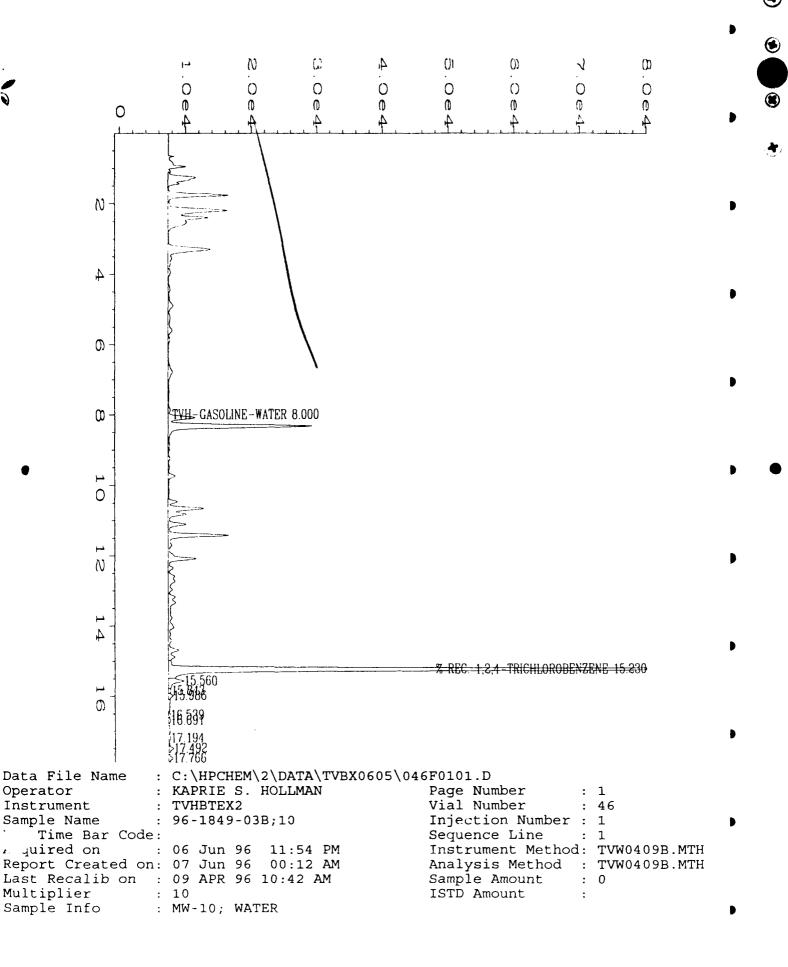
QUALIFIERS and DEFINITIONS:

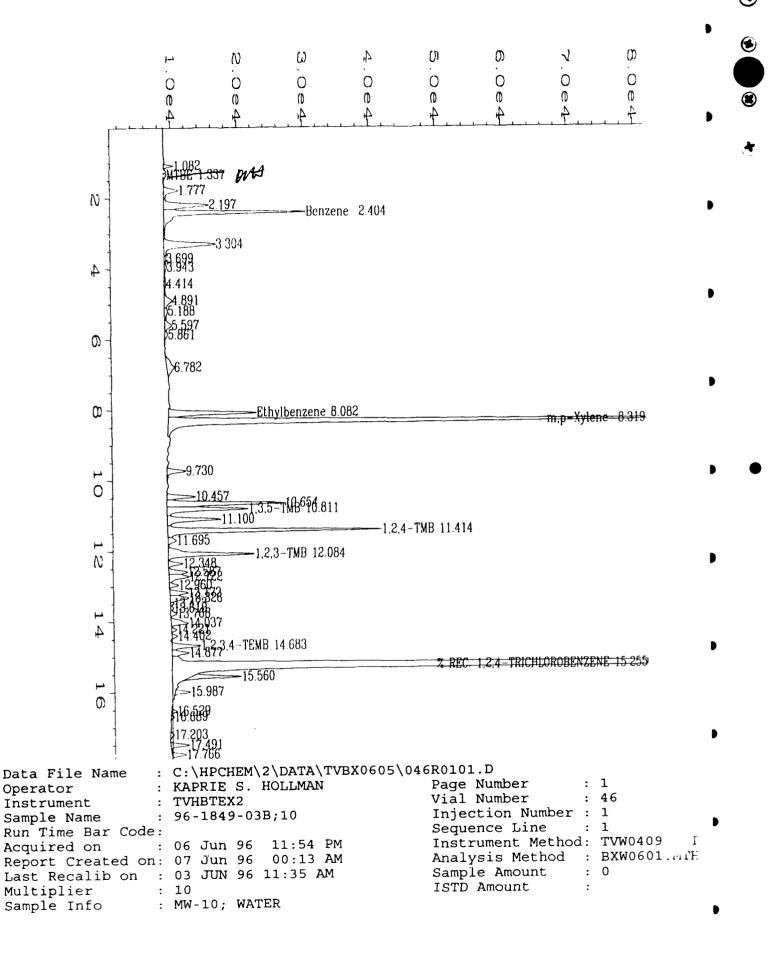
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- J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.
- RL = Reporting Limit.
- NA = Not Available/Not Applicable.
- **PID** = Photoionization detector.
- FID = Flame ionization detector.
- TVH = Total Volatile Hydrocarbons.

Analyst

Approved

TVBP1849.XLS; 6/10/96; 4





Methods 602/8020 and 5030/8015 Modified Data Report

Client	Sample	Number
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: MW-30

Client Project Number

Madison ANGB

Lab Sample Number

: 96-1849-04

Lab Work Order

96-1849

Date Sampled

: 6/5/96

Matrix

WATER

Date Received Date Prepared

: 6/6/96

Lab File Number(s) Method Blank

TVBX0605037 MB060696-W

FID Dilution Factor

: 6/6/96

: 10 PID Dilution Factor : 10

		Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6/6/96	4.2	1.0	mg/L
Benzene	71-43-2	6/6/96	98	4.0	ug/L
Toluene	108-88-3	6/6/96	U	4.0	ug/L
Chlorobenzene	108-90-7	6/6/96	U	4.0	ug/L
Ethyl Benzene	100-41-4	6/6/96	79	4.0	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/6/96	450	4.0	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/6/96	58	4.0	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/6/96	170	4.0	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/6/96	96	4.0	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/6/96	33	5.0	ug/L
D Surrogate Recovery:	<u> </u>	97%	l	70%-130%	(Limits)
PID Surrogate Recovery:		105%		70%-128%	(Limits)

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

Comments:	 	 	 		

QUALIFIERS and DEFINITIONS:

E = Extrapolated value. Value exceeds calibration range.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

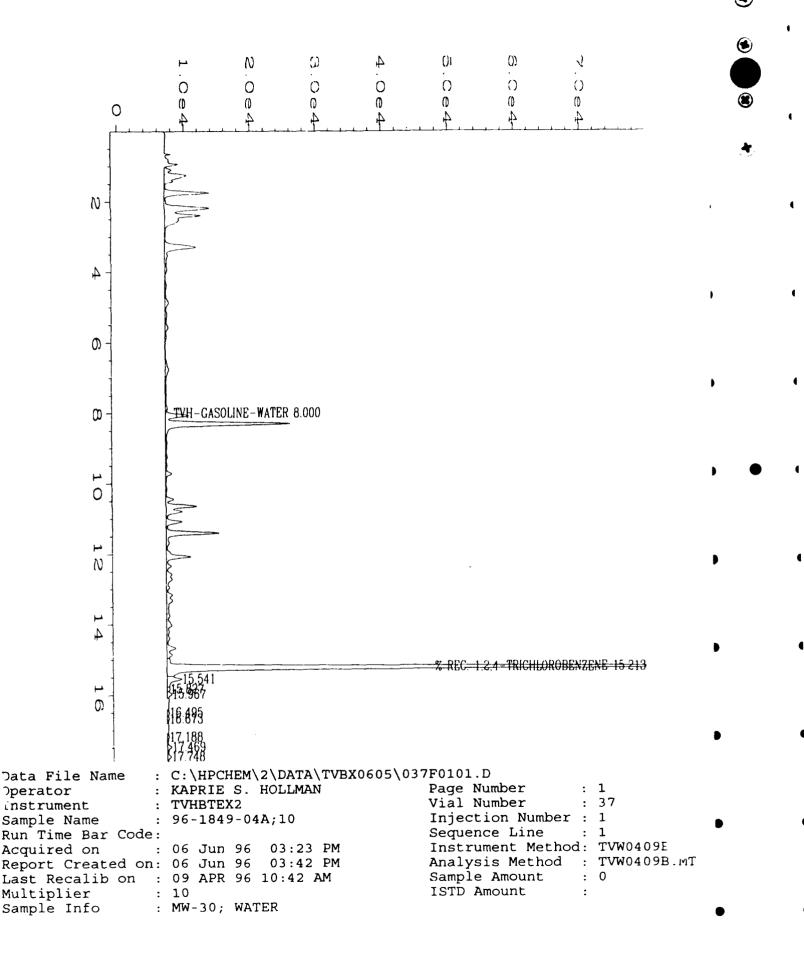
PID = Photoionization detector.

FID = Flame ionization detector.

TVH = Total Volatile Hydrocarbons.

Approved

TVBP1849.XLS; 6/10/96; 5

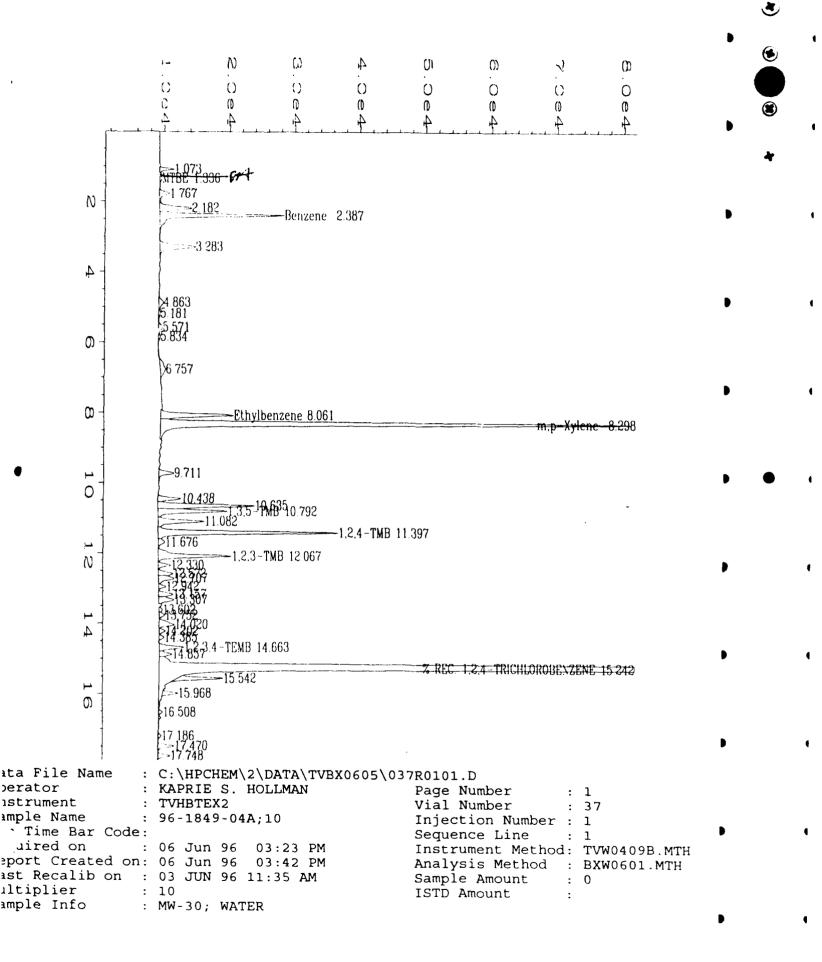


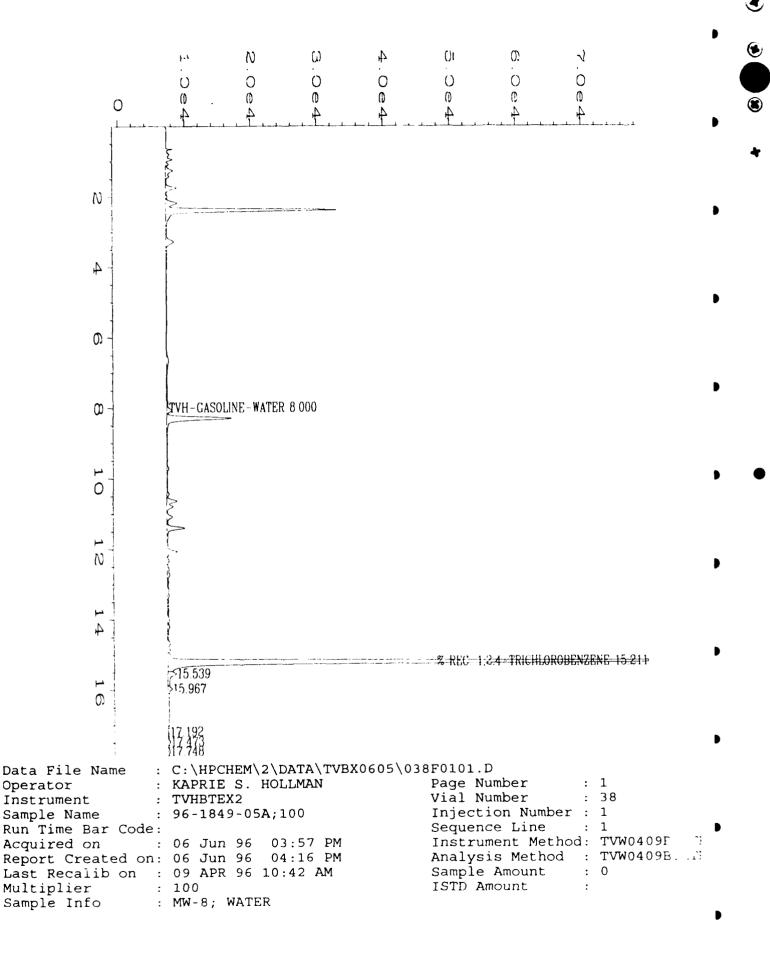
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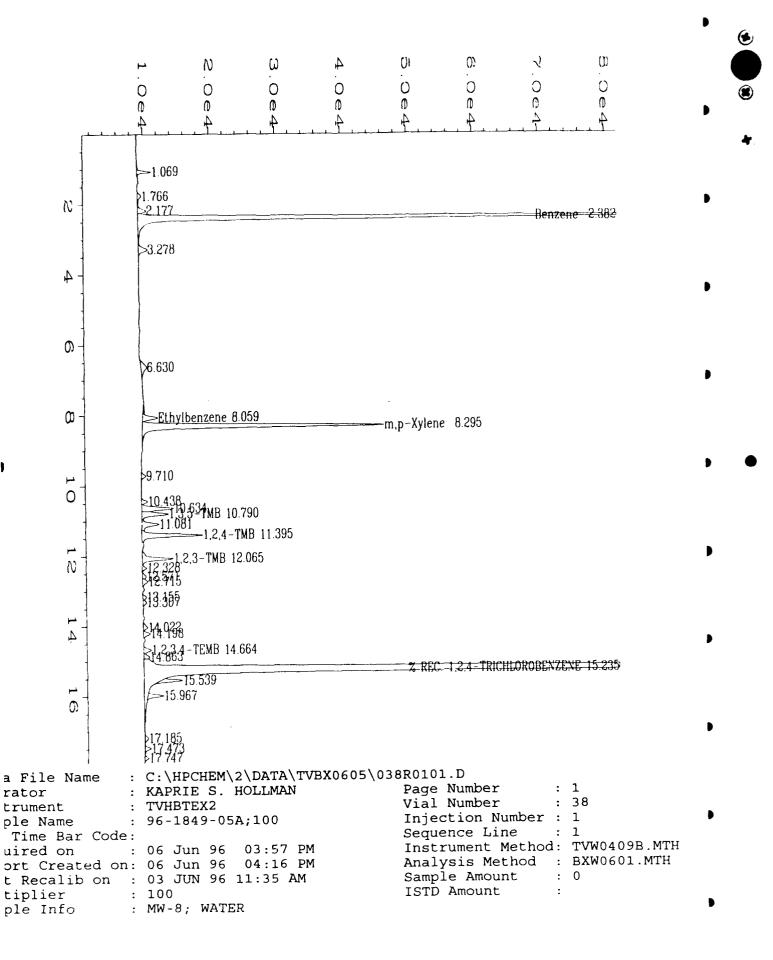
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Methods 602/8020 and 5030/8015 Modified Data Report

Client Sample Number

: MW-22S

Client Project Number

Madison ANGB

Lab Sample Number

: 96-1849-06

Lab Work Order

96-1849

Date Sampled

: 6/5/96

Matrix

WATER

Date Received Date Prepared : 6/6/96

Lab File Number(s)

TVBX0605048

FID Dilution Factor

: 6/6/96

Method Blank

MB060696-W

: 1.0

PID Dilution Factor : 1.0

		Analysis	Sample	1	
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6/7/96	U	0.1	mg/L
Benzene	71-43-2	6/7/96	U	0.4	ug/L
Toluene	108-88-3	6/7/96	U	0.4	ug/L
Chlorobenzene	108-90-7	6/7/96	U	0.4	ug/L
Ethyl Benzene	100-41-4	6/7/96	U	0.4	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/7/96	U	0.4	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/7/96	U	0.4	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/7/96	U	0.4	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/7/96	U	0.4	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/7/96	U	0.5	ug/L
FID Surrogate Recovery:		95%		70%-130%	(Lim
PID Surrogate Recovery:		105%		70%-128%	(Limits)

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

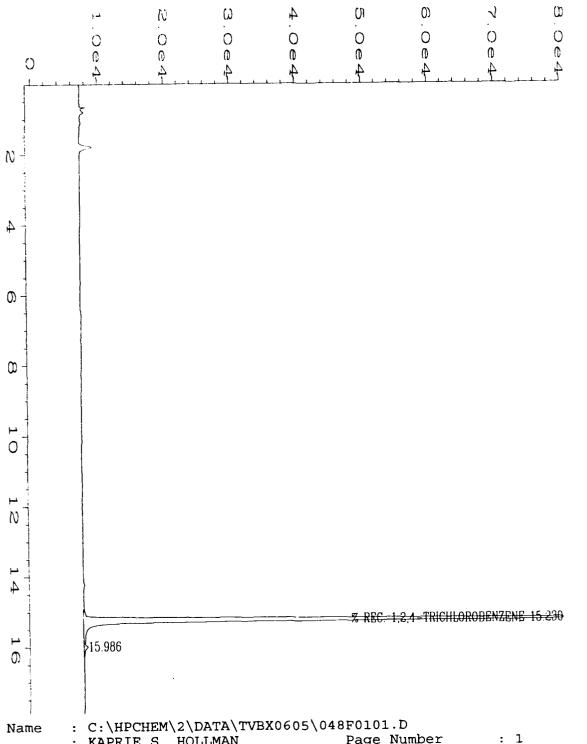
Comments:	 		
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QUALIFIERS and DEFINITIONS:

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- J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.
- RL = Reporting Limit.
- NA = Not Available/Not Applicable.
- **PID** = Photoionization detector.
- FID = Flame ionization detector.
- TVH = Total Volatile Hydrocarbons.

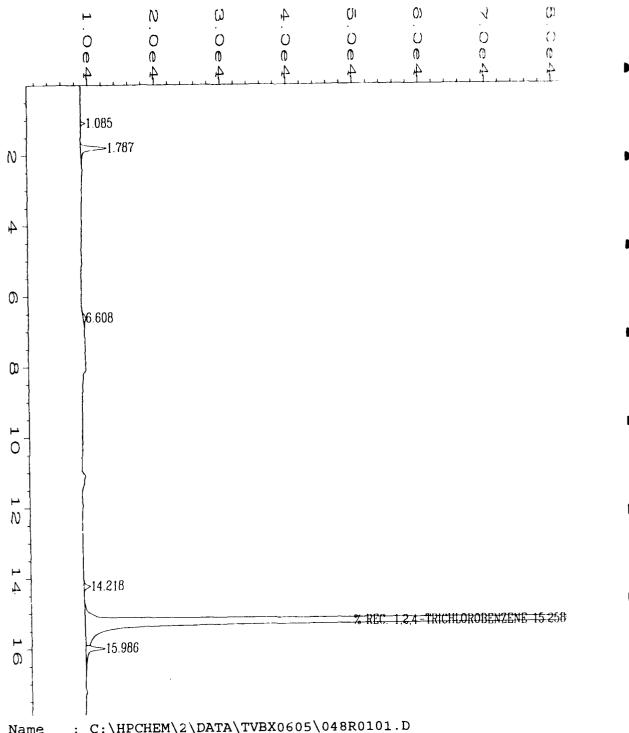
Approved

TVBP1849.XLS; 6/10/96; 7



Data File Name Page Number : KAPRIE S. HOLLMAN Operator Vial Number : 48 : TVHBTEX2 Instrument Injection Number : 1 : 96-1849-06A;1 Sample Name Sequence Line : 1 Time Bar Code: Instrument Method: TVW0409B.MTH A. duired on : 07 Jun 96 01:06 AM Analysis Method : TVW0409B.MTH Report Created on: 07 Jun 96 01:24 AM Sample Amount : 0 Last Recalib on : 09 APR 96 10:42 AM ISTD Amount : 1 Multiplier

Sample Info : MW-22S; WATER



: C:\HPCHEM\2\DATA\TVBX0605\048R0101.D Data File Name Page Number : KAPRIE S. HOLLMAN Operator : 48 Vial Number TVHBTEX2 Instrument Injection Number: 1 : 96-1849-06A;1 Sample Name : 1 Sequence Line Run Time Bar Code: Instrument Method: TVW0409i : 07 Jun 96 01:06 AM Acquired on : BXW0601.MTF Analysis Method Report Created on: 07 Jun 96 01.24 AM Sample Amount Last Recalib on : 03 JUN 96 11:35 AM ISTD Amount Multiplier : 1

Sample Info : MW-22S; WATER

Methods 602/8020 and 5030/8015 Modified Data Report

Client Sample Number

: MW-22D

Client Project Number

Madison ANGB

Lab Sample Number

: 96-1849-07

Lab Work Order

96-1849

Date Sampled **Date Received** : 6/5/96

Matrix

WATER TVBX0605049

Date Prepared

: 6/6/96 : 6/6/96 Lab File Number(s)

MB060696-W

FID Dilution Factor PID Dilution Factor : 1.0 : 1.0 Method Blank

		Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6/7/96	U	0.1	mg/L
Benzene	71-43-2	6/7/96	6.5	0.4	ug/L
Toluene	108-88-3	6/7/96	U	0.4	ug/L
Chlorobenzene	108-90-7	6/7/96	U	0.4	ug/L
Ethyl Benzene	100-41-4	6/7/96	U	0.4	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/7/96	U	0.4	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/7/96	U	0.4	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/7/96	U	0.4	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/7/96	U	0.4	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/7/96	U	0.5	ug/L
D Surrogate Recovery:		95%	l	70%-130%	(Limits)
PID Surrogate Recovery:		105%		70%-128%	(Limits)

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

Comments:	 			
		-		

QUALIFIERS and DEFINITIONS:

E = Extrapolated value. Value exceeds calibration range.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

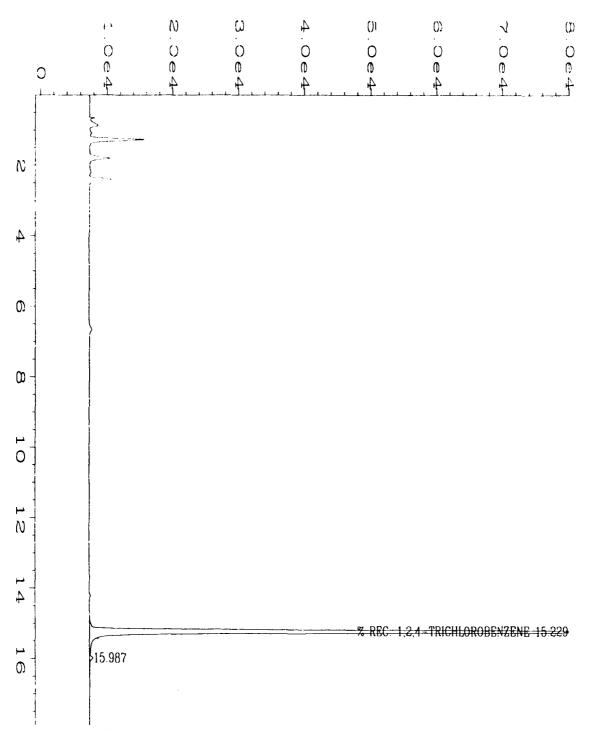
PID = Photoionization detector.

FID = Flame ionization detector.

TVH = Total Volatile Hydrocarbons.

Approved

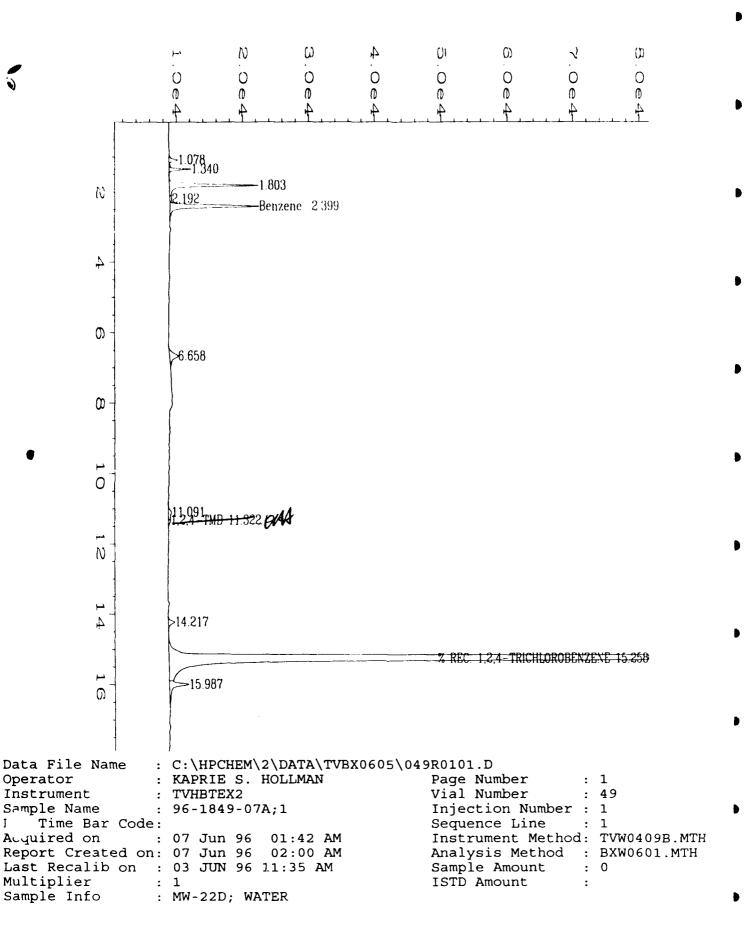
TVBP1849 XLS: 6/10/96; 8



Data File Name : C:\HPCHEM\2\DATA\TVBX0605\049F0101.D : KAPRIE S. HOLLMAN Operator Page Number Instrument : TVHBTEX2 Vial Number : 49 Sample Name : 96-1849-07A;1 Injection Number: 1 Run Time Bar Code: Sequence Line Acquired on : 07 Jun 96 01:42 AM Instrument Method: TVW04095 Report Created on: 07 Jun 96 02:00 AM Analysis Method : TVW0409B.MT

Last Recalib on : 09 APR 96 10:42 AM Sample Amount : 0

Multiplier : 1 ISTD Amount Sample Info : MW-22D; WATER



Methods 602/8020 and 5030/8015 Modified Data Report

Client Sample Number

: MW-32

Client Project Number

Madison ANGB

Lab Sample Number

: 96-1849-08

Lab Work Order

96-1849

Date Sampled

: 6/5/96

Matrix

WATER

Date Received

: 6/6/96

Lab File Number(s)

TVBX0605050

Date Prepared

: 6/6/96

Method Blank MB060696-W

FID Dilution Factor

: 1.0

PID Dilution Factor : 1.0

	· · · · · · · · · · · · · · · · · · ·	Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6/7/96	U	0.1	mg/L
Benzene	71-43-2	6/7/96	6.6	0.4	ug/L
Toluene	108-88-3	6/7/96	U	0.4	ug/L
Chlorobenzene	108-90-7	6/7/96	U	0.4	ug/L
Ethyl Benzene	100-41-4	6/7/96	U	0.4	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/7/96	U	0.4	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/7/96	U	0.4	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/7/96	U	0.4	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/7/96	U	0.4	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/7/96	U	0.5	ug/L
FID Surrogate Recovery:		96%	1	70%-130%	(Lir
PID Surrogate Recovery:		105%		70%-128%	(Limico)

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

Comments:				

QUALIFIERS and DEFINITIONS:

E = Extrapolated value. Value exceeds calibration range.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.

RL = Reporting Limit.

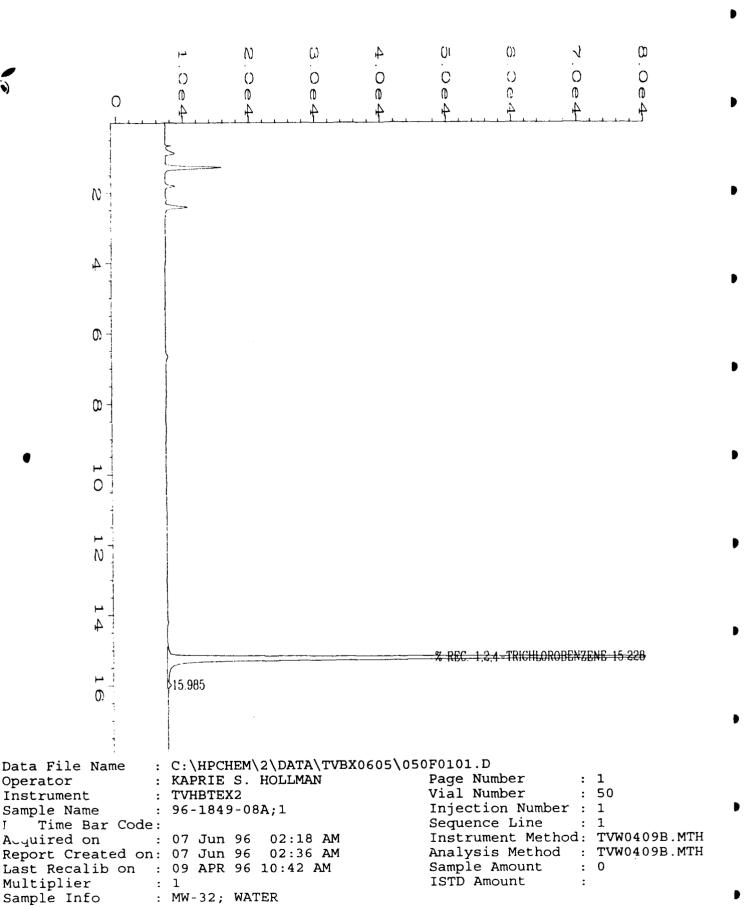
NA = Not Available/Not Applicable.

PID = Photoionization detector.

FID = Flame ionization detector.

TVH = Total Volatile Hydrocarbons.

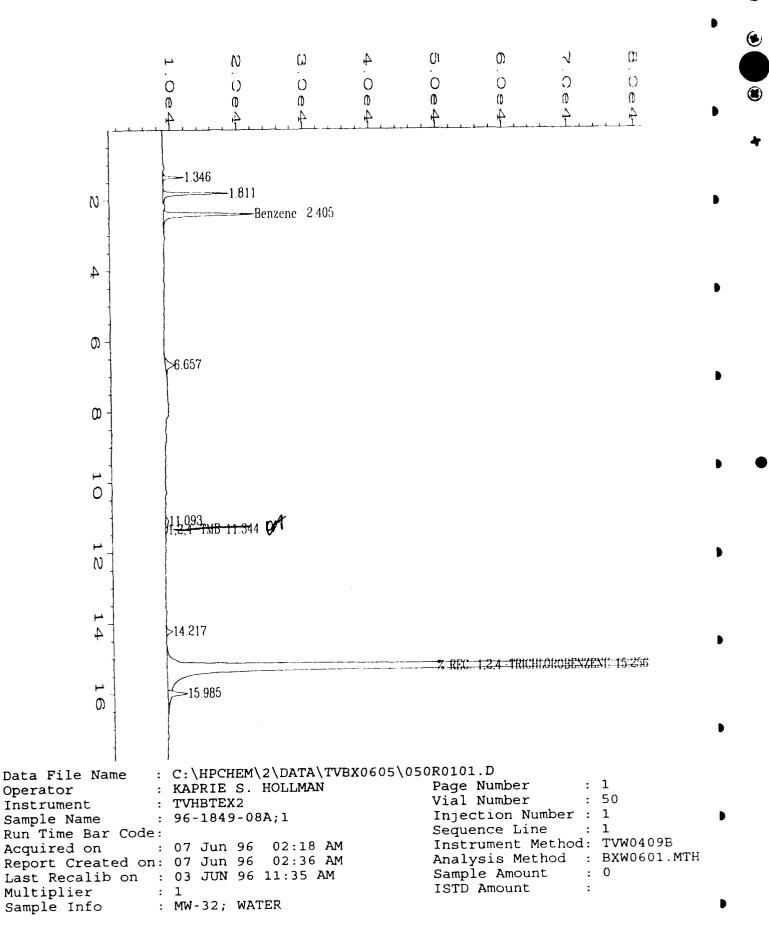
TVBP1849.XLS; 6/10/96; 9



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Methods 602/8020 and 5030/8015 Modified Data Report

Client Sample Number

: MW-17

Client Project Number

Madison ANGB

Lab Sample Number

: 96-1849-09

Lab Work Order

96-1849

Date Sampled

: 6/5/96

Matrix

WATER

Date Received Date Prepared

: 6/6/96 : 6/6/96 Lab File Number(s)

TVBX0605051

FID Dilution Factor

: 1.0

Method Blank MB060696-W

PID Dilution Factor : 1.0

		Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6/7/96	U	0.1	mg/L
Benzene	71-43-2	6/7/96	U	0.4	ug/L
Toluene	108-88-3	6/7/96	U	0.4	ug/L
Chlorobenzene	108-90-7	6/7/96	U	0.4	ug/L
Ethyl Benzene	100-41-4	6/7/96	U	0.4	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/7/96	U	0.4	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/7/96	U	0.4	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/7/96	U	0.4	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/7/96	U	0.4	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/7/96	U	0.5	ug/L
FID Surrogate Recovery:		96%		70%-130%	(Limits)
PID Surrogate Recovery:		106%		70%-128%	(Limits)

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

Comment	s:						

QUALIFIERS and DEFINITIONS:

E = Extrapolated value. Value exceeds calibration range.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

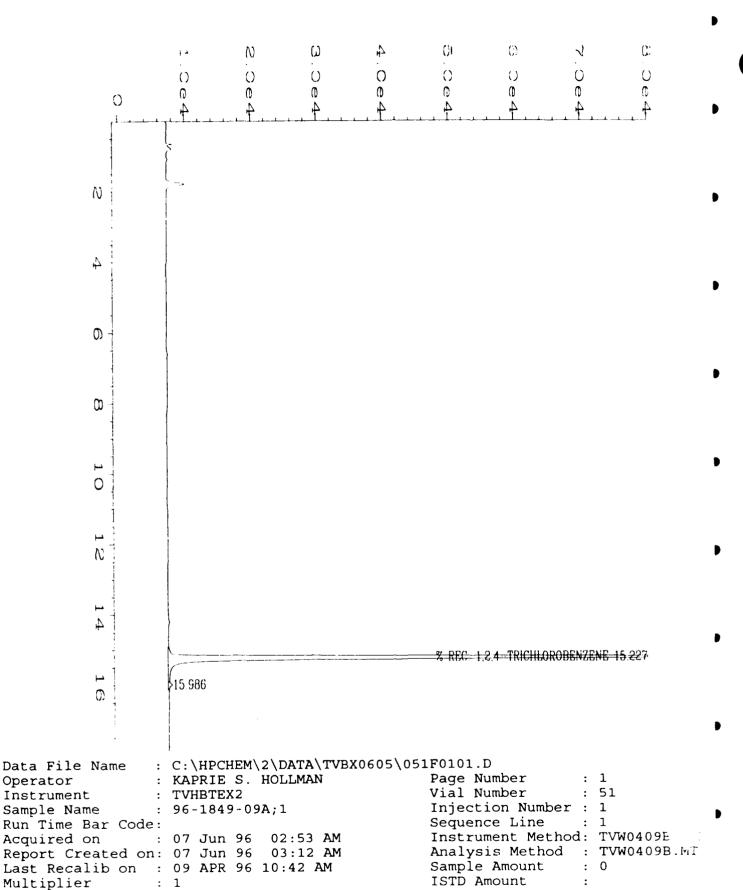
PID = Photoionization detector.

FID = Flame ionization detector.

TVH = Total Volatile Hydrocarbons.

Approved

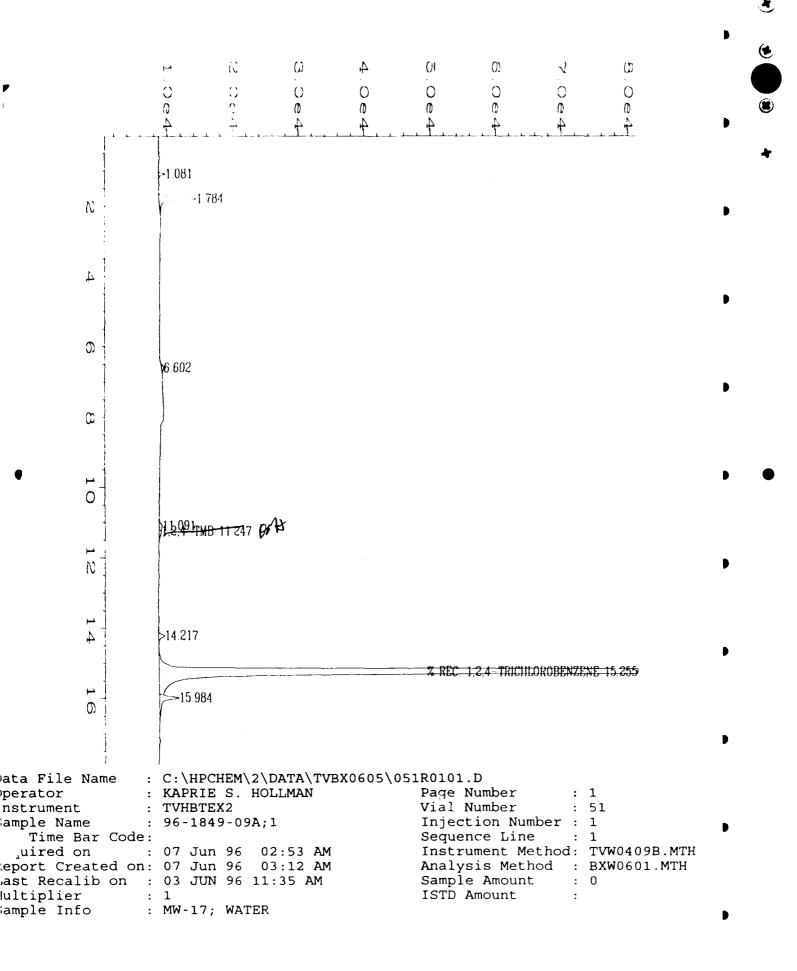
TVBP1849 XIS 6/10/96 10



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: MW-17; WATER

Sample Info



Methods 602/8020 and 5030/8015 Modified Data Report

Client Sample Number : MW-25 Client Project Number : Madison ANGB Lab Sample Number : 96-1849-10 Lab Work Order : 96-1849 Date Sampled : 6/5/96 Matrix : WATER

 Date Sampled
 : 6/5/96
 Matrix
 : WATER

 Date Received
 : 6/6/96
 Lab File Number(s)
 : TVBX0605052

 Date Prepared
 : 6/6/96
 Method Blank
 : MB060696-W

FID Dilution Factor : 1.0
PID Dilution Factor : 1.0

		Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6/7/96	U	0.1	mg/L
Benzene	71-43-2	6/7/96	U	0.4	ug/L
Toluene	108-88-3	6/7/96	U	0.4	ug/L
Chlorobenzene	108-90-7	6/7/96	U	0.4	ug/L
Ethyl Benzene	100-41-4	6/7/96	U	0.4	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/7/96	U	0.4	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/7/96	U	0.4	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/7/96	U	0.4	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/7/96	U	0.4	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/7/96	U	0.5	ug/L
FID Surrogate Recovery:		96%	1	70%-130%	Lir.
PID Surrogate Recovery:		105%		70%-128%	(Limica

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

Comments:			

QUALIFIERS and DEFINITIONS:

E = Extrapolated value. Value exceeds calibration range.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

PID = Photoionization detector.

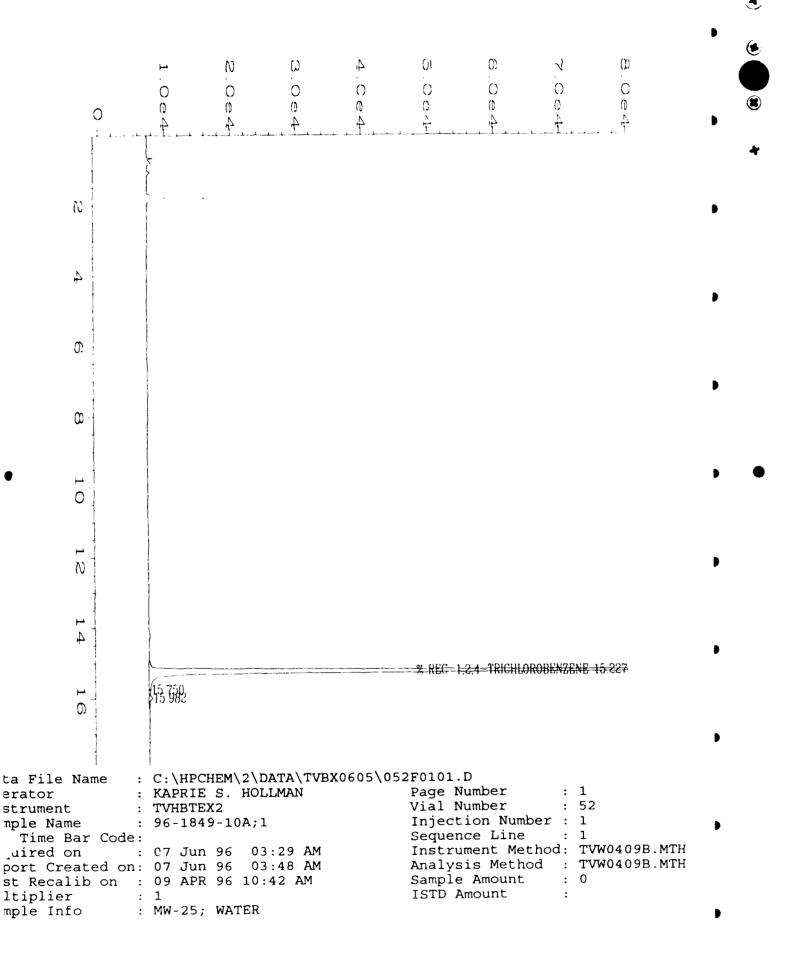
FID = Flame ionization detector.

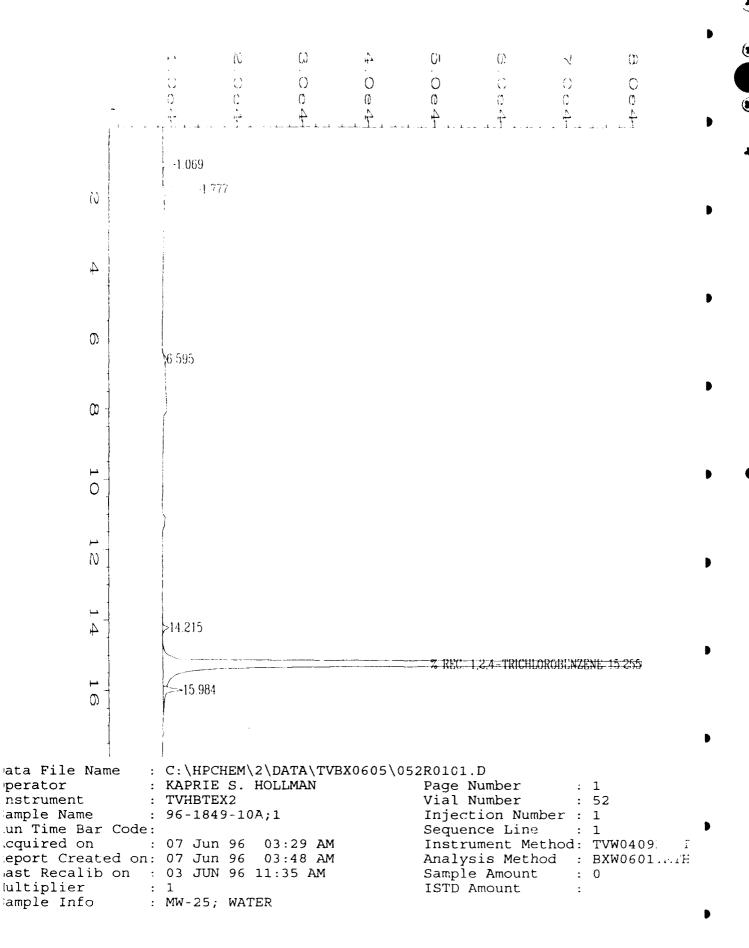
TVH = Total Volatile Hydrocarbons.

Analyst

Approved

TVBP1849 XLS; 6/10/96; 11





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Methods 602/8020 and 5030/8015 Modified Data Report

Client Sample Number

: CPT-18S

Client Project Number

Madison ANGB

Lab Sample Number

: 96-1849-11

Lab Work Order

96-1849

Date Sampled

: 6/5/96

Matrix

WATER

Date Received Date Prepared

: 6/6/96

Lab File Number(s)

TVBX0605053

FID Dilution Factor

: 6/6/96 : 1.0

Method Blank

MB060696-W

PID Dilution Factor

: 1.0

		Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6/7/96	U	0.1	mg/L
Benzene	71-43-2	6/7/96	U	0.4	ug/L
Toluene	108-88-3	6/7/96	U	0.4	ug/L
Chlorobenzene	108-90-7	6/7/96	U	0.4	ug/L
Ethyl Benzene	100-41-4	6/7/96	U	0.4	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/7/96	Ü	0.4	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/7/96	U	0.4	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/7/96	U	0.4	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/7/96	Ū	0.4	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/7/96	U	0.5	ug/L
FID Surrogate Recovery:	<u> </u>	L	L	70%-130%	(Limits)
ND C		1000/		700/ 1000/	// impidal

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FID Surrogate Recovery:	98%	70%-130%	(Limits)
PID Surrogate Recovery:	106%	70%-128%	(Limits)

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

Comments:						 	
	 		- 	 	 	 	

QUALIFIERS and DEFINITIONS:

E = Extrapolated value. Value exceeds calibration range.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

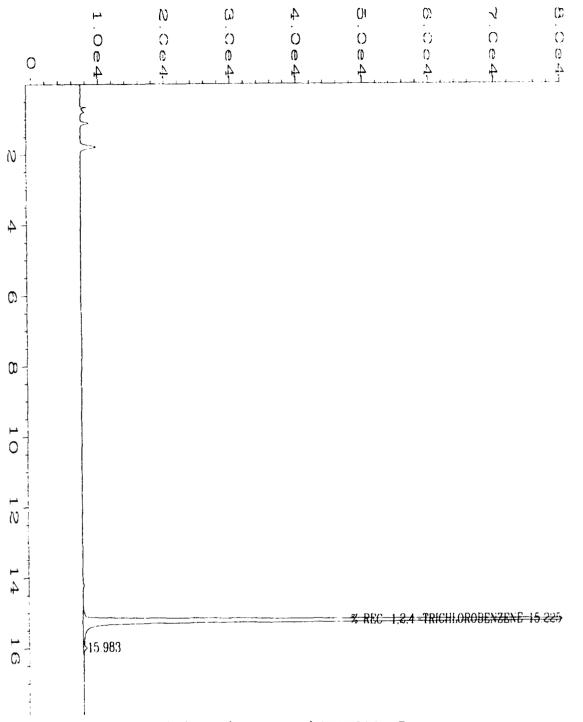
PID = Photoionization detector.

FID = Flame ionization detector.

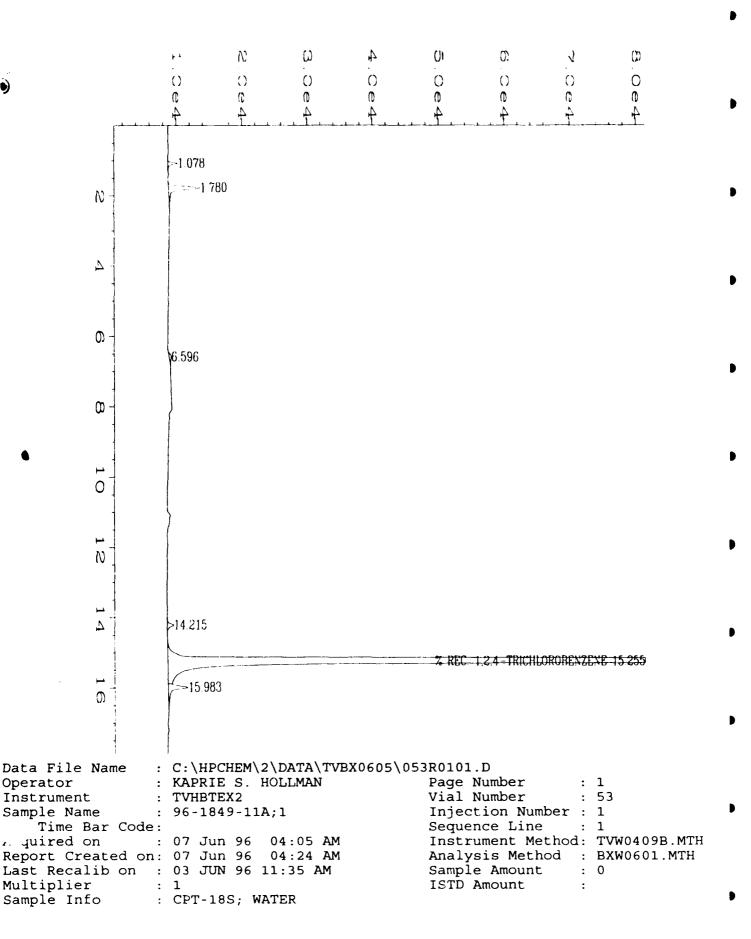
TVH = Total Volatile Hydrocarbons.

Approved

TVBP1849 XLS 6:10/96 12



: C:\HPCHEM\2\DATA\TVBX0605\053F0101.D Data File Name : KAPRIE S. HOLLMAN Page Number : 1 Operator : 53 Vial Number TVHBTEX2 Instrument Injection Number: 1 . .ple Name 96-1849-11A;1 : Sequence Line Run Time Bar Code: Instrument Method: TVW0409F : 07 Jun 96 04:05 AM Acquired on Report Created on: 07 Jun 96 04:24 AM Analysis Method : TVW0409B.mf Sample Amount : 0 Last Recalib on : 09 APR 96 10:42 AM ISTD Amount Multiplier : 1 Sample Info : CPT-18S; WATER



Methods 602/8020 and 5030/8015 Modified Data Report

Client Sample Number : FIELD BLANK Client Project Number : Madison ANGB

 Lab Sample Number
 : 96-1849-12
 Lab Work Order
 : 96-1849

 Date Sampled
 : 6/5/96
 Matrix
 : WATER

Date Received : 6/6/96 Lab File Number(s) : TVBX0605044
Date Prepared : 6/6/96 Method Blank : MB060696-W

FID Dilution Factor : 1.0 PID Dilution Factor : 1.0

		Analysis	Sample		
Compound Name	Cas Number	Date	Concentration	RL	Units
TVH-Gasoline		6/6/96	U	0.1	mg/L
Benzene	71-43-2	6/6/96	U	0.4	ug/L
Toluene	108-88-3	6/6/96	U	0.4	ug/L
Chlorobenzene	108-90-7	6/6/96	U	0.4	ug/L
Ethyl Benzene	100-41-4	6/6/96	U	0.4	ug/L
Total Xylenes (m,p,o)	1330-20-7	6/6/96	U	0.4	ug/L
1,3,5-Trimethylbenzene	108-67-8	6/6/96	U	0.4	ug/L
1,2,4-Trimethylbenzene	95-63-6	6/6/96	U	0.4	ug/L
1,2,3-Trimethylbenzene	526-73-8	6/6/96	U	0.4	ug/L
1,2,3,4-Tetramethylbenzene	488-23-3	6/6/96	U	0.5	ug/L
FID Surrogate Recovery:		96%	1	70%-130%	(Liı
PID Surrogate Recovery:		106%		70%-128%	(Limits)

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

Comments:		 	
	 	 _	

QUALIFIERS and DEFINITIONS:

E = Extrapolated value. Value exceeds calibration range.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

PID = Photoionization detector.

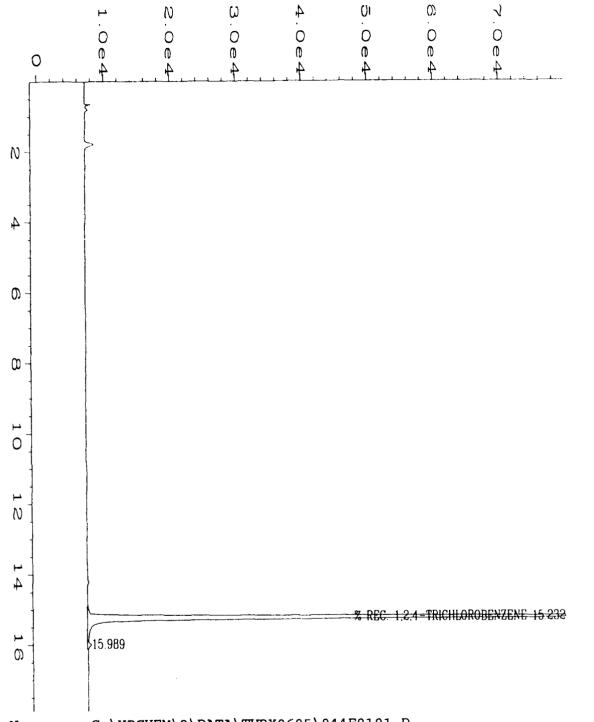
FID = Flame ionization detector.

TVH = Total Volatile Hydrocarbons.

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Approved

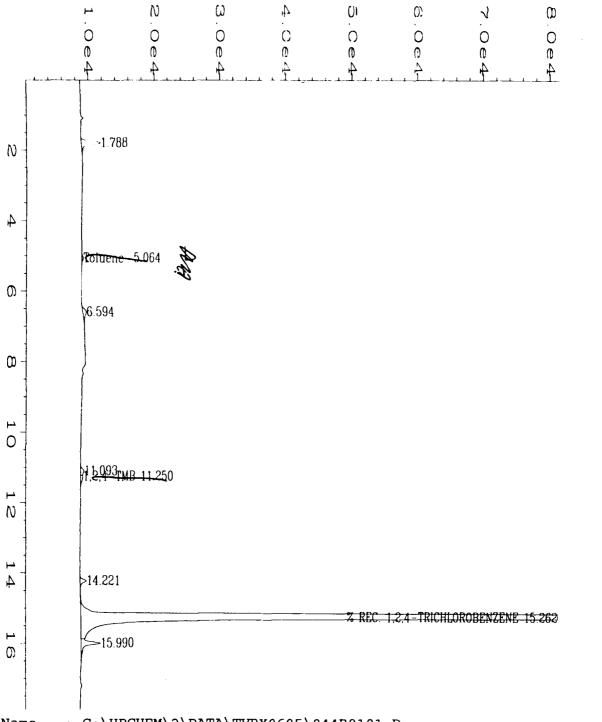
TV8P1849.XLS; 6/10/96; 13



: C:\HPCHEM\2\DATA\TVBX0605\044F0101.D Data File Name Page Number : 1 Operator : KAPRIE S. HOLLMAN : 44 Vial Number Instrument : TVHBTEX2 Injection Number: 1 : 96-1849-12A;1 Sample Name : 1 Time Bar Code: Sequence Line Instrument Method: TVW0409B.MTH A _uired on : 06 Jun 96 10:42 PM Report Created on: 06 Jun 96 11:01 PM Analysis Method : TVW0409B.MTH : 0

Last Recalib on : 09 APR 96 10:42 AM Sample Amount

ISTD Amount Multiplier : FIELD BLANK; WATER Sample Info



Data File Name : C:\HPCHEM\2\DATA\TVBX0605\044R0101.D Operator KAPRIE S. HOLLMAN Page Number Vial Number Instrument TVHBTEX2 44 96-1849-12A;1 Sample Name Injection Number: 1 Run Time Bar Code: Sequence Line : 1 Acquired on : 06 Jun 96 10:42 PM Instrument Method: TVW0409. Report Created on: 06 Jun 96 11:01 PM Analysis Method : BXW0601.MTH Last Recalib on : 03 JUN 96 11:35 AM Sample Amount Multiplier ISTD Amount Sample Info : FIELD BLANK; WATER

EPA 602/8020 Data Report Laboratory Control Sample (LCS)

 LCS Number
 : LCS06C696-BW

 Date Extracted/Prepared
 : 6/6/96

 Date Analyzed
 : 6/7/96

 Spike Amount (ug/L)
 : 20.0

 Dilution Factor
 : 1.00

 Method
 : 602/8020

 Matrix
 : Water

Lab File No. : TVBX00605058

		LCS	LCS	
	Cas	Concentration	%	QC Limit**
Compound Name	Number	(ug/L)	Recovery	% Recovery
Benzene	71-43-2	18.7	93.5	75 - 119
Toluene	108-88-3	18.6	93.0	78 - 121
Chlorobenzene	108-90-7	17.8	89.0	79 - 119
Ethyl Benzene	100-41-4	18.6	93.0	80 - 123
n,p-Xylene	108-38-3	37.0	92.5	79 - 124
	106-42-3			
elene	95-47-6	18.6	93.0	78 - 122
мтве	1634-04-4	NA	NA	50 - 150
1,3,5-Trimethylbenzene	108-67-8	16.9	84.5	71 - 127
1,2,4-Trimethylbenzene	95-63-6	18.3	91.5	76 - 118
1,2,3-Trimethylbenzene	526-73-8	22.3	111.5	75 - 131
1,2,3,4-Tetramethylbenzene	488-23-3	20.5	102.5	67 - 138
Surrogate Recovery:		107%		70 - 128

NOTES:

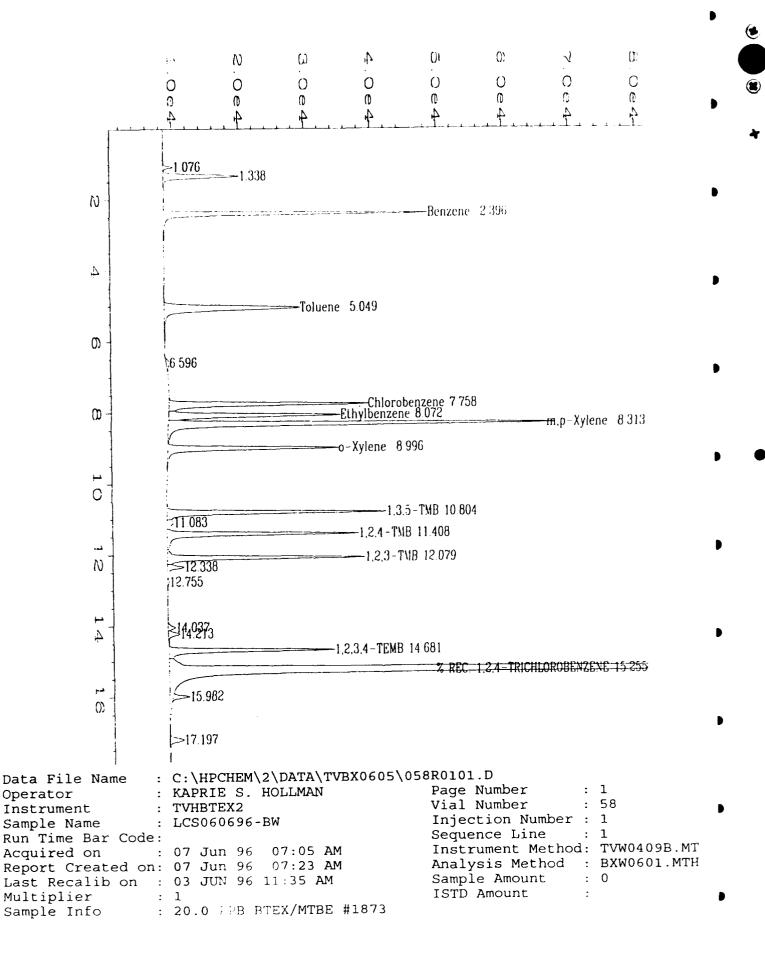
m,p-xylene = 40.0 ppb spike.

QUALIFIERS:

- E = Extrapolated value. Value exceeds that of the calibration range.
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- NA = Not available/Not analyzed.
 - = Limits established 5/21/96 for TVHBTEX2. KSH

Analyst

Approved



TOTAL VOLATILE HYDROCARBONS (TVH as Gasoline) Laboratory Control Sample (LCS)

LCS Number : LCS060696-GW Matrix : WATER

Date Prepared : 6/6/96 Method Numbers : EPA 5030/8015 Modified

Date Analyzed : 6/7/96 Instrument Name : TVHBTEX2

Lab File Number(s) : TVBX0605057

Compound Name	Theoretical Concentration (mg/L)	LCS Concentration (mg/L)	LCS % Recovery	QC Limit % Recovery
Gasoline	2.00	1.85	92.5	82 - 133
Surrogate Recovery:	······································	99%		70 - 128

QUALIFIERS

B = TVH as Gasoline found in blank also.

E = Extrapolated value. Value exceeds calibration range.

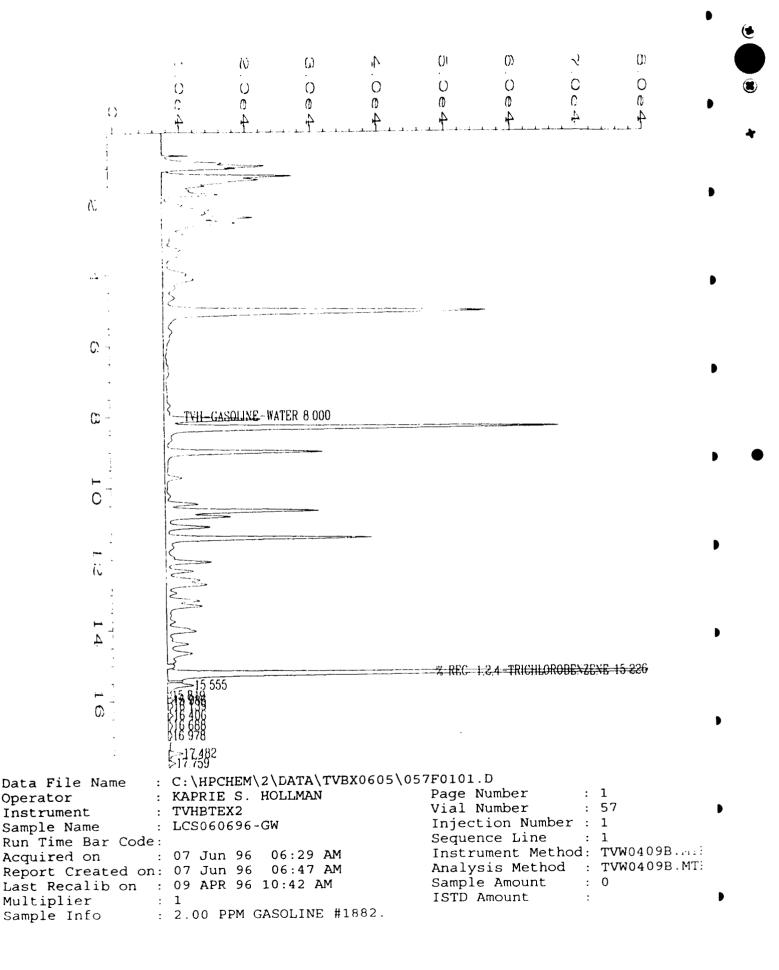
NA = Not Available/Not Applicable.

Hollman

** = Limits established 5/21/96 for TVHBTEX2. KSH

Approved

1.05T0606 YES: 11-61 AM: 6/7/06



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TOTAL EXTRACTABLE HYDROCARBONS (TEH-JP-4)

Date Sampled

: 6/5/96

Client Project Number

: Madison ANGB

Date Received
Date Prepared

: 6/6/96 : 6/7/96 Lab Work Order

: 96-1849

Method Number

: EPA 3500/8015 Modified

Evergreen Sample #	Dilution Factor	Client Sample #	Matrix	Analysis Date	Surrogate Recovery	Sample Result	RL	Units
WB060796	1	Water Method Blan	Water	6/12/96	100%	U	0.5	mg/L
96-1849-02	1	MW-9	Water	6/13/96	88%	1.7	0.5	mg/L
96-1849-05	2	MW-8	Water	6/13/96	79%	2.5	1.0	mg/L

Qualifiers

U = TEH analyzed for, but not detected.

B = TEH-JP-4 also found in blank.

E = Extrapolated value. Value exceeds calibration range.

RL = Reporting Limit.

Analyst

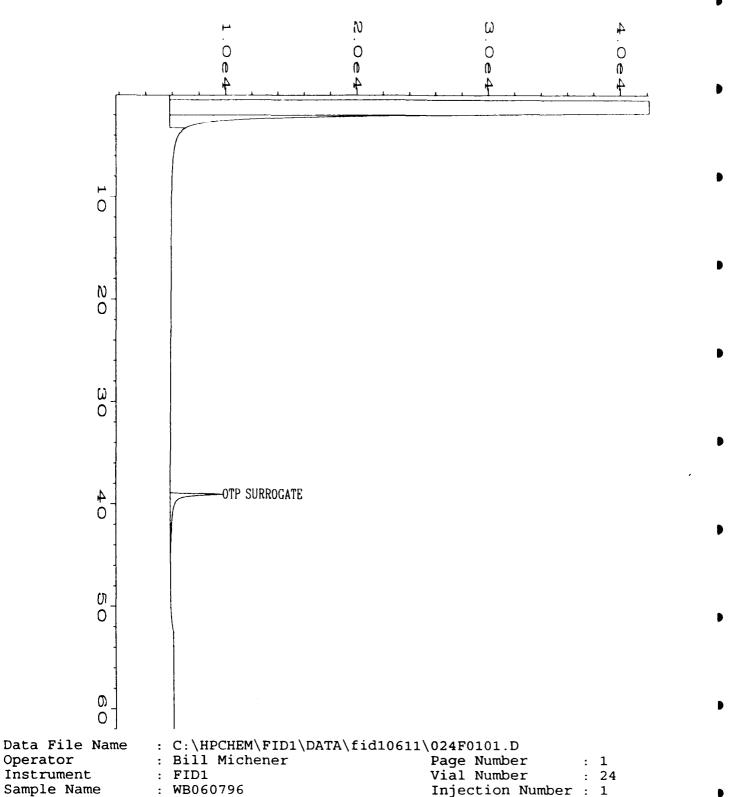
Notes

Surrogate = OTP

* = Based on dry weight

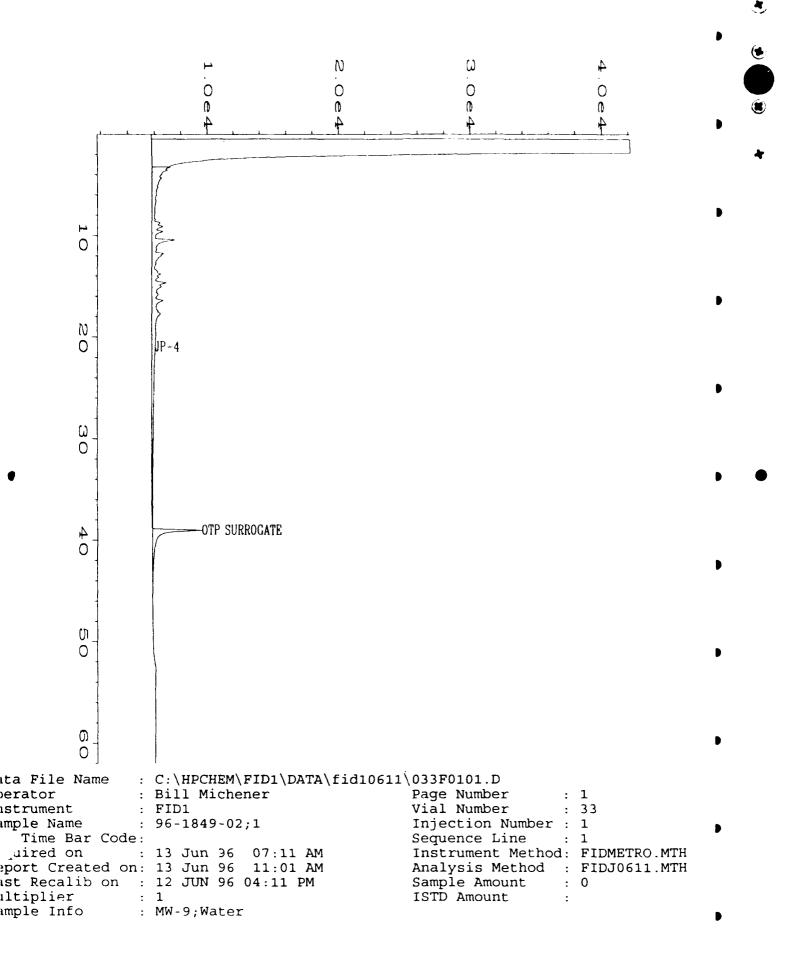
Approved

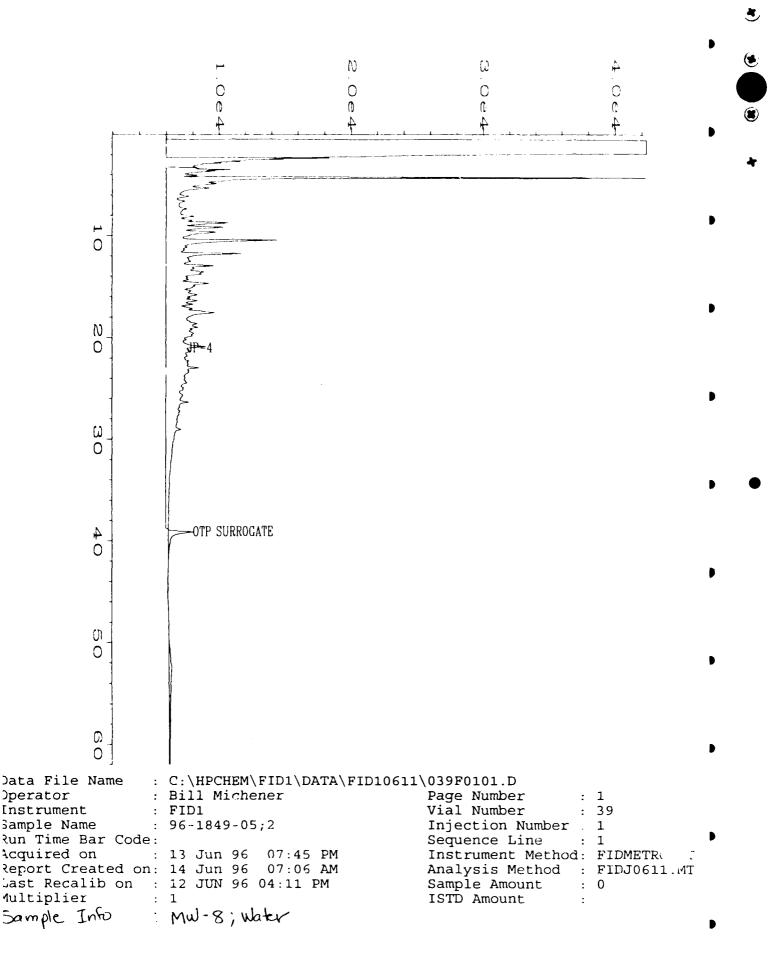
FID11849.XLS



Sample Name Run Time Bar Code: Sequence Line : 1 Acquired on : 12 Jun 96 Instrument Method: FIDMETRO. 08:04 PM Report Created on: 13 Jun 96 11:00 AM Analysis Method : FIDJ0611.MT Last Recalib on : 12 JUN 96 04:11 PM Sample Amount

Multiplier ISTD Amount





Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL EXTRACTABLE HYDROCARBONS (TEH as JP-4)

TEH Laboratory Control Spike/Laboratory Control Spike Duplicate Data Report

LCS Number

: LCSI&II060796w

Matrix

: Water

Date Prepared

: 6/7/96

Method Number

: EPA 3500/8015 Modified

Date Analyzed

: 6/12,13/96

Lab File No.

: FID10611027,028

Compound	Spike Added (mg/L)	Sample Blank Concentration (mg/L)	LCS* Concentration (mg/L)	LCS %REC	QC Limits %REC
JP-4	1000	Ö	994	99.4	50-121
Surrogate	NA	100%	89%	NA	50-150

Compound	Spike Added	LCSD* Concentration	LCSD			QC Limits
L	(mg/L)	(mg/L)	%REC	RPD	RPD	%REC
JP-4	1000	905	90.5	9.4	50	50-121
Surrogate	NA	91%	NA	NA	NA	50-150

RPD:	0	out of	(1)	outside limits.
Spike Recovery:	0	out of	(2)	outside limits.

Notes

** = Values outside of QC limits.

NA = Not analyzed/not applicable.

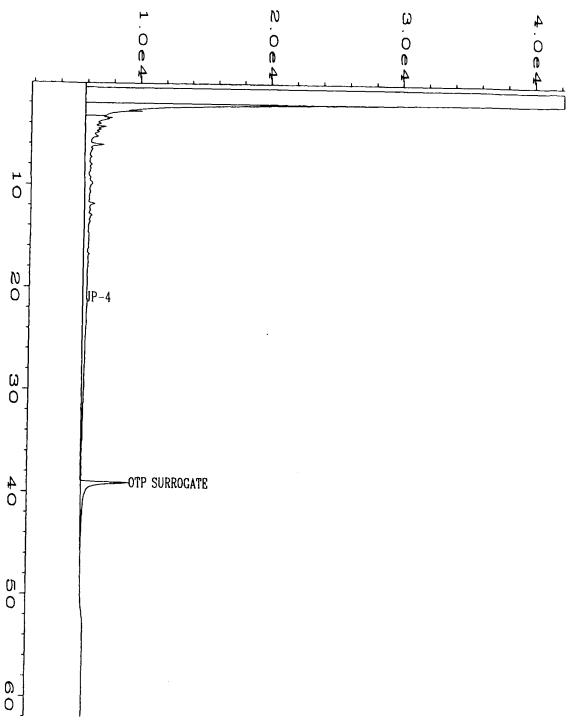
Comments:

* LCS concentrations are reported based on the one ml extract volume.

Analyst

Approved /

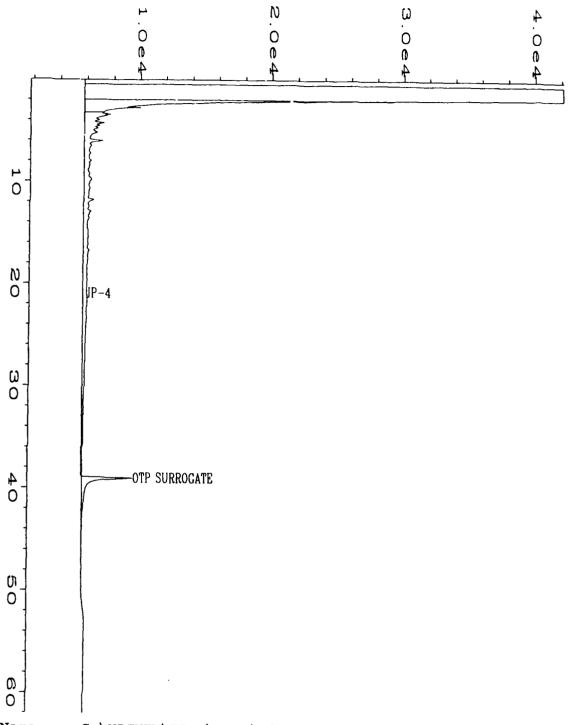
LCS0607.XLS; 6/14/96



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Data File Name :	C:\HPCHEM\FID1\DATA\fid10611	\027F0101.D
Instrument :	Bill Michener FID1	Page Number : 1
Sample Name : Run Time Bar Code:		Injection Number : 1
Acquired on : Report Created on:	12 Jun 96 11:44 PM 13 Jun 96 11:00 AM	Sequence Line : 1 Instrument Method: FIDMETROI Analysis Method : FIDJ0611.MTI
Multiplier :	12 JUN 96 04:11 PM	Sample Amount : 0 ISTD Amount :



Operator Instrument Sample Name I Time Bar Code Acquired on Report Created on	13 Jun 96 00:58 AM 13 Jun 96 11:00 AM 12 JUN 96 04:11 PM	Page Number : 1 Vial Number : 28 Injection Number : 1 Sequence Line : 1 Instrument Method: FIDMETRO.MTH Analysis Method : FIDJ0611.MTH Sample Amount : 0 ISTD Amount :
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Methane Report Form Method Blank Report

Method Blank Number

: GB061496

Client Project No.

: Madison ANGB

Date Extracted/Prepared Date Analyzed

: 6/14/96 : 6/14/96

Lab Work Order Dilution Factor : 96-1849: 1.00

Method

: RSKSOP-175

Matrix

: Water

Lab File No.

: GAS0614002

Sample
Cas Number Concentrati

Concentration mg/L

RL mg/L

Methane

Compound Name

74-82-8

U

0.002

Qualifiers

E = Extrapolated value.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

Approved

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Data File Name : C:\HPCHEM\ALCGAS\DATA\GAS0614\002R0101.D Operator : Bill Michener Page Number : 1 Instrument : ALCGAS Vial Number : 2 ole Name : GB061496 Injection Number: 1 Time Bar Code: Sequence Line Acquired on : 14 Jun 96 09:30 AM Instrument Method: GAS.MTH Report Created on: 17 Jun 96 10:39 AM Analysis Method : GAS0614.MTH Last Recalib on : 07 JUN 96 11:12 AM Sample Amount : 0 Multiplier : 1 ISTD Amount Sample Info : Gas Method Blank

Displaced 4ml of deionized water in 43ml vial with Helium

Methane Report Form

Client Sample Number	: MW-11	Client Project No.	: Madison ANGB
Lab Sample Number	: 96-1849-01	Lab Work Order	: 96-1849
Date Sampled	: 6/5/96	Dilution Factor	: 1.00
Date Received	: 6/6/96	Method	: RSKSOP-175
Date Extracted/Prepared	: 6/14/96	Matrix	: Water
Date Analyzed	: 6/14/96	Lab File No.	: GAS0614019

Compound Name	Cas Number	Concentration	RL
		mg/L	mg/L
Methane	74-82-8	U	0.002

Temperature	:	84 F	Saturation	Meth	
Amount Injected	:	0.5 ml	Concentration		
Total Volume of Sample	:	43 mi	Concentration	Meth	
Head space created	:	4 ml	in Head Space		
Methane Area		0 110			

Atomic weight(Methane) : 16 g

Qualifiers

E = Extrapolated value.

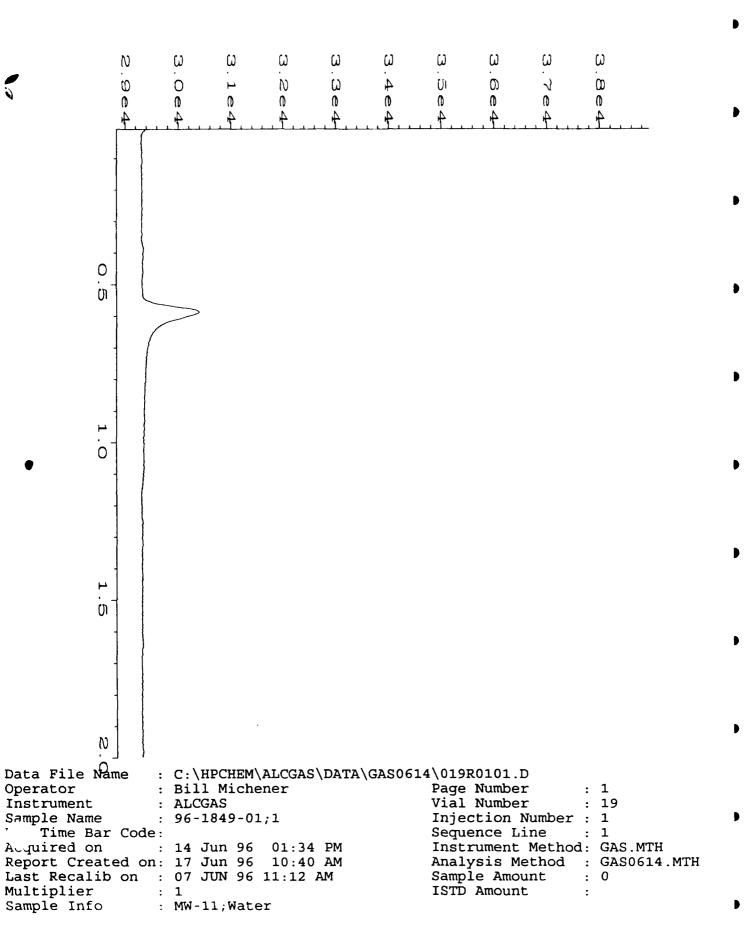
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

K. Hollman
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Methane Report Form

Client Sample Number	: MW-9	Client Project No.	: Madison ANGB
Lab Sample Number	: 96-1849-02	Lab Work Order	: 96-1849
Date Sampled	: 6/5/96	Dilution Factor	: 50.00
Date Received	: 6/6/96	Method	: RSKSOP-175
Date Extracted/Prepared	: 6/14/96	Matrix	: Water
Date Analyzed	: 6/14/96	Lab File No.	: GAS0614020

Compound Name	Cas Number	Concentration	RL
		mg/L	mg/L
Methane	74-82-8	1.7	0.1

Temperature	: _	84.1 F	Saturation	Meth	0.405 C 5
Amount Injected	: _	0.01 ml	Concentration		
Total Volume of Sample	: _	43 ml	Concentration	Meth	1.24767985
Head space created	: _	4 ml	in Head Space		
Methane Area	: _	188.365 ug			-

Atomic weight(Methane) : _____ g

Qualifiers

E = Extrapolated value.

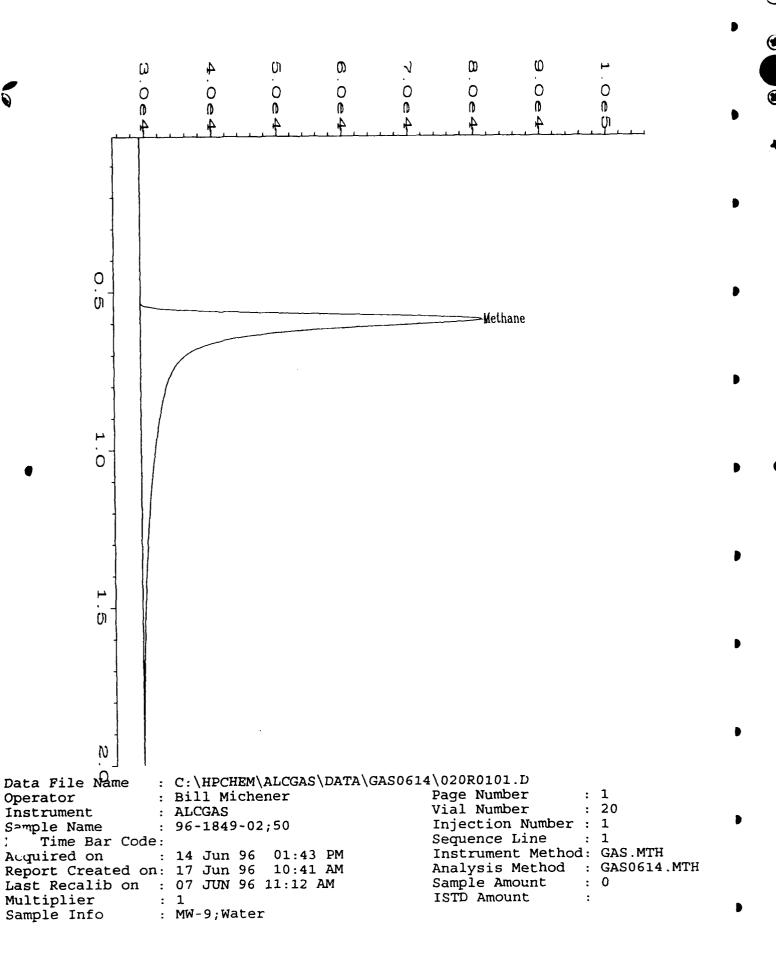
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

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Methane Report Form

Client Sample Number : MW-10 Client Project No. : Madison ANGB Lab Sample Number : 96-1849-03 Lab Work Order : 96-1849 **Date Sampled** : 6/5/96 Dilution Factor : 100.00 **Date Received** : 6/6/96 Method : RSKSOP-175 Date Extracted/Prepared : 6/14/96 Matrix : Water Lab File No. Date Analyzed : 6/14/96 : GAS0614021

 Compound Name
 Cas Number
 Sample Concentration mg/L
 RL mg/L

 Methane
 74-82-8
 5.9
 0.2

Temperature 84.3 F Saturation Meth 1.434 0.005 ml Amount Injected Concentration Total Volume of Sample 43 ml Concentration Meth 4.41637962 Head space created 4 ml in Head Space 333.498 ug Methane Area

Atomic weight(Methane) : _____ 16 g

Qualifiers

E = Extrapolated value.

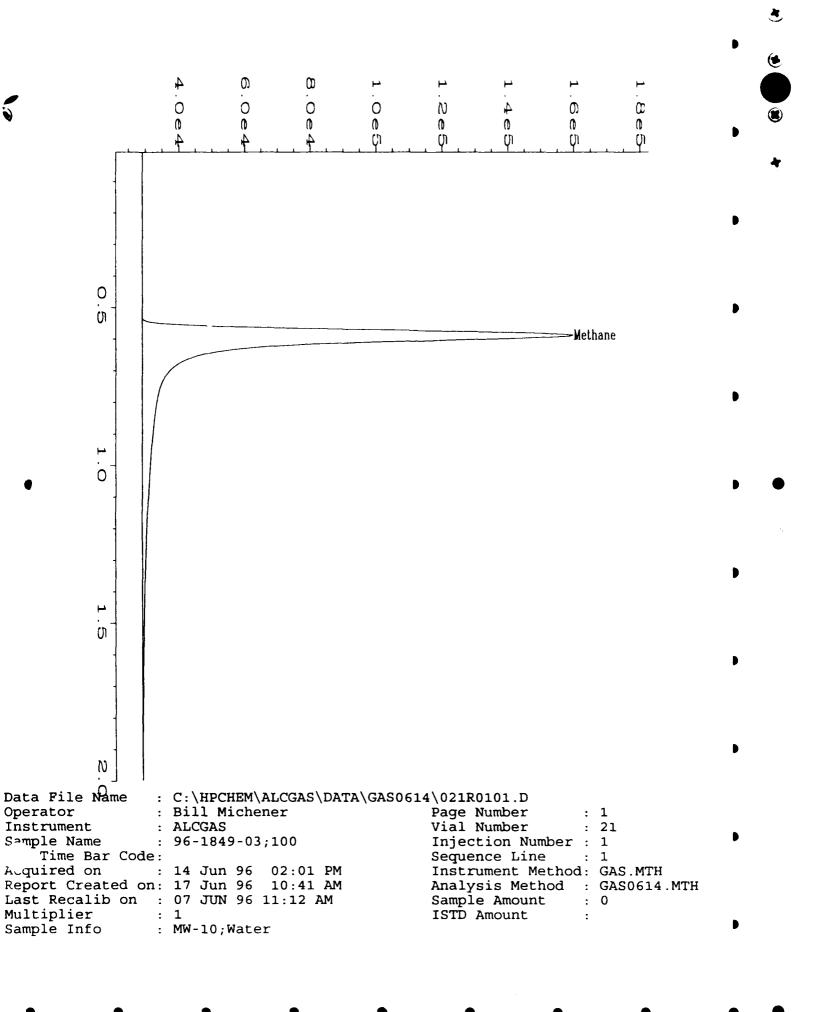
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

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Client Sample Number	: MW-30	Client Project No.	: Madison ANGB
Lab Sample Number	: 96-1849-04	Lab Work Order	: 96-1849
Date Sampled	: 6/5/96	Dilution Factor	: 100.00
Date Received	: 6/6/96	Method	: RSKSOP-175
Date Extracted/Prepared	: 6/14/96	Matrix	: Water
Date Analyzed	: 6/14/96	Lab File No.	: GAS0614022

		Sample			
Compound Name	Cas Number Concentration		RL		
		mg/L	mg/L		
Methane	74-82-8	6.9	0.2		

Temperature	:	84.3 F	Saturation	Meth	1.689 ° C
Amount Injected	:	0.005 ml	Concentration		
Total Volume of Sample	:	43 ml	Concentration	Meth	5.20161265
· Head space created	:	4 ml	in Head Space		
Methane Area	;	392.794 ug			

Atomic weight(Methane) : _____ 16 g

Qualifiers

E = Extrapolated value.

U = Compound analyzed for, but not detected.

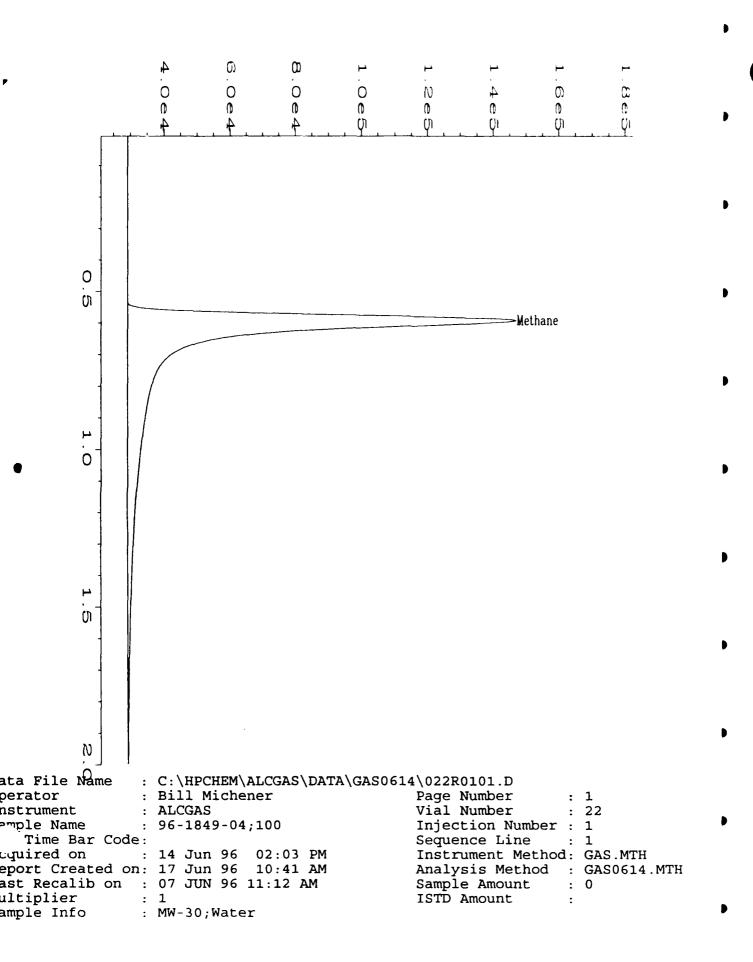
B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

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Client Sample Number	: MW-30	Client Project No.	: Madison ANGE
Lab Sample Number	: 96-1849-04Dup	Lab Work Order	: 96-1849
Date Sampled	: 6/5/96	Dilution Factor	: 100.00
Date Received	: 6/6/96	Method	: RSKSOP-175
Date Extracted/Prepared	: 6/14/96	Matrix	: Water
Date Analyzed	: 6/14/96	Lab File No.	: GAS0614023

	Sample				
Compound Name	Cas Number	Concentration	RL		
		mg/L	mg/L		
Methane	74-82-8	6.9	0.2		

Temperature	:	84.2 F	Saturation	Meth	1.69 232
Amount Injected	:	0.005 ml	Concentration		
Total Volume of Sample	:	43 ml	Concentration	Meth	5.21443708
Head space created	:	4 ml	in Head Space		
Methane Area	:	393.69 ug			

Atomic weight(Methane) : _____ 16 g

Qualifiers

E = Extrapolated value.

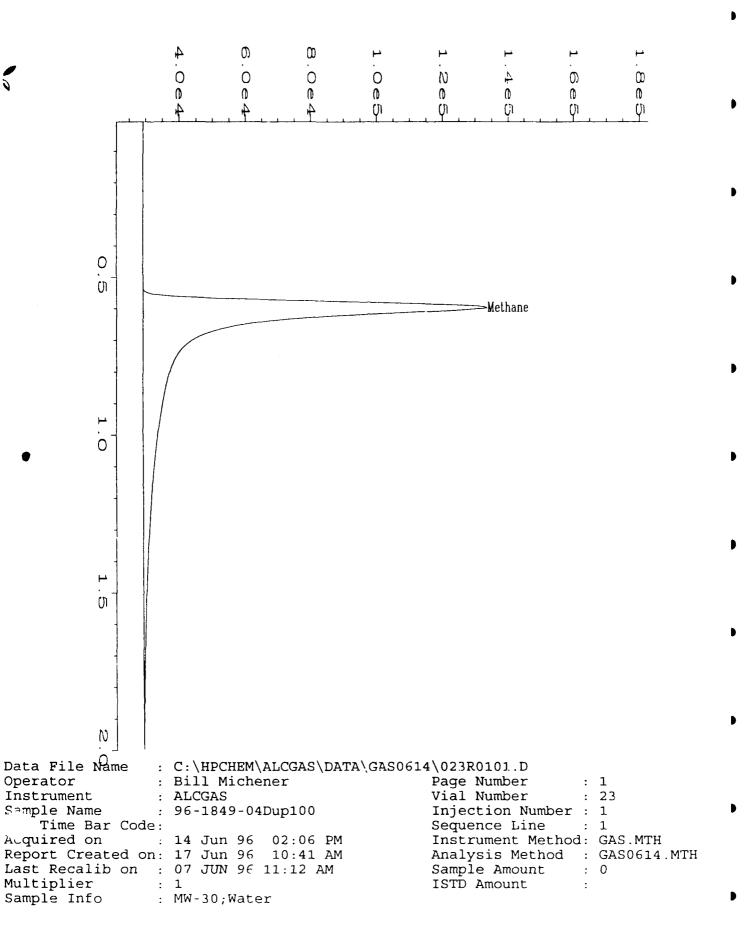
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

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Methane Report Form

Client Sample Number	: MW-8	Client Project No.	: Madison ANGB
Lab Sample Number	: 96-1849-05	Lab Work Order	: 96-1849
Date Sampled	: 6/5/96	Dilution Factor	: 100.00
Date Received	: 6/6/96	Method	: RSKSOP-175
Date Extracted/Prepared	: 6/14/96	Matrix	: Water
Date Analyzed	: 6/14/96	Lab File No.	: GAS0614024

		Sample	
Compound Name	Cas Number	Concentration mg/L	RL mg/L
			mg/L
Methane	74-82-8	9.9	0.2

Temperature Amount Injected	<u>:</u> ——	84.4 F 0.005 ml	Saturation Concentration	Meth	2.434
Total Volume of Sample	:	43 mi	Concentration	Meth	7.49714895
Head space created Methane Area	:	4 ml 566.243 ug	in Head Space		

Atomic weight(Methane)	:	16 g
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Qualifiers

E = Extrapolated value.

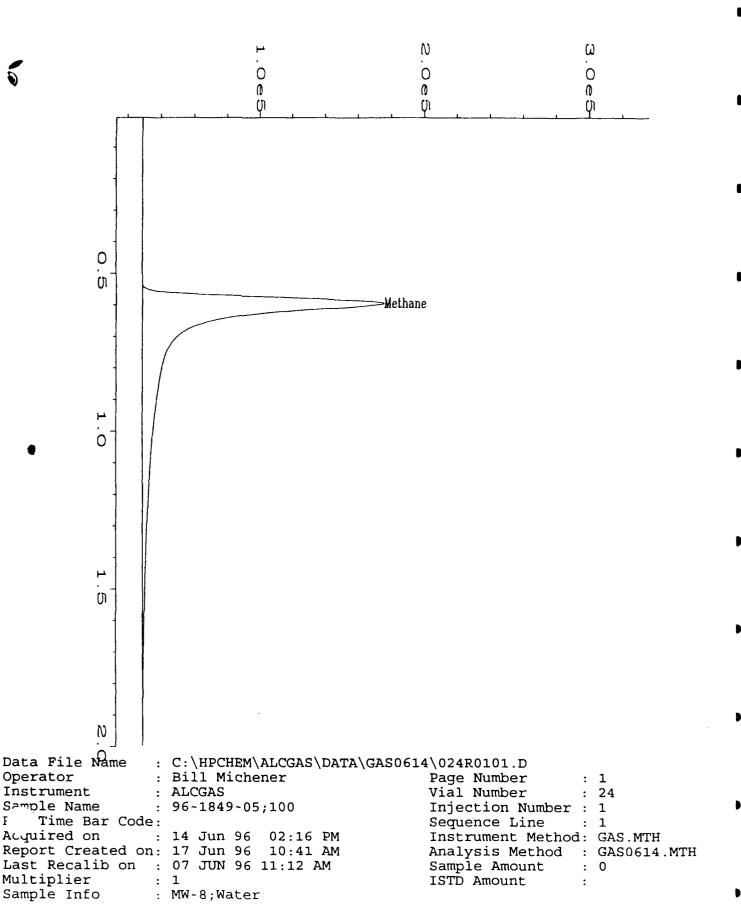
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

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Methane Report Form

Client Sample Number	: MW-22S	Client Project No.	: Madison ANGB
Lab Sample Number	: 96-1849-06	Lab Work Order	: 96-1849
Date Sampled	: 6/5/96	Dilution Factor	: 1.00
Date Received	: 6/6/96	Method	: RSKSOP-175
Date Extracted/Prepared	: 6/14/96	Matrix	: Water
Date Analyzed	: 6/14/96	Lab File No.	: GAS0614025

	Sample				
Compound Name	Cas Number	Concentration	RL		
		mg/L	mg/L		
Methane	74-82-8	0.002	0.002		

Temperature	:	8 <u>4.1</u> F	Saturation	Meth	0.0004 4
Amount Injected	:	0.5 ml	Concentration		
Total Volume of Sample	:	43 ml	Concentration	Meth	0.00139350
Head space created	:	<u>4</u> ml	in Head Space		
Methane Area	:	10.519 ug			

Atomic weight(Methane) : _____ <u>16</u> g

Qualifiers

E = Extrapolated value.

U = Compound analyzed for, but not detected.

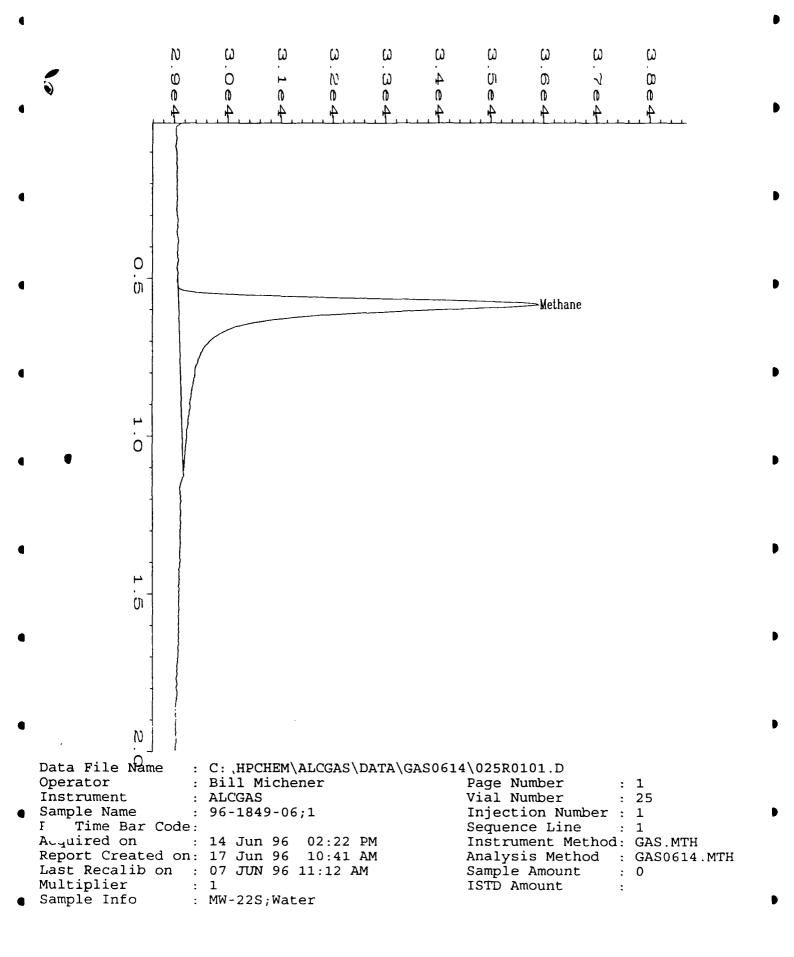
B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

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Methane Report Form

Client Sample Number	: MW-22D	Client Project No.	: Madison ANGB
Lab Sample Number	: 96-1849-07	Lab Work Order	: 96-1849
Date Sampled	: 6/5/96	Dilution Factor	: 50.00
Date Received	: 6/6/96	Method	: RSKSOP-175
Date Extracted/Prepared	: 6/14/96	Matrix	: Water
Date Analyzed	: 6/14/96	Lab File No.	: GAS0614027

Compound Name	Cas Number	Concentration	RL
		mg/L	mg/L
Methane	74-82-8	0.5	0.1

Temperature	:	84.4 F	Saturation	Meth	0.1327 7
Amount Injected	:	0.01 ml	Concentration		
Total Volume of Sample	:	43 m/	Concentration	Meth	0.40859139
Head space created	:	4 ml	in Head Space		
Methane Area	:	61.72 ug			

Atomic weight(Methane) : _____ 16 g

Qualifiers

E = Extrapolated value.

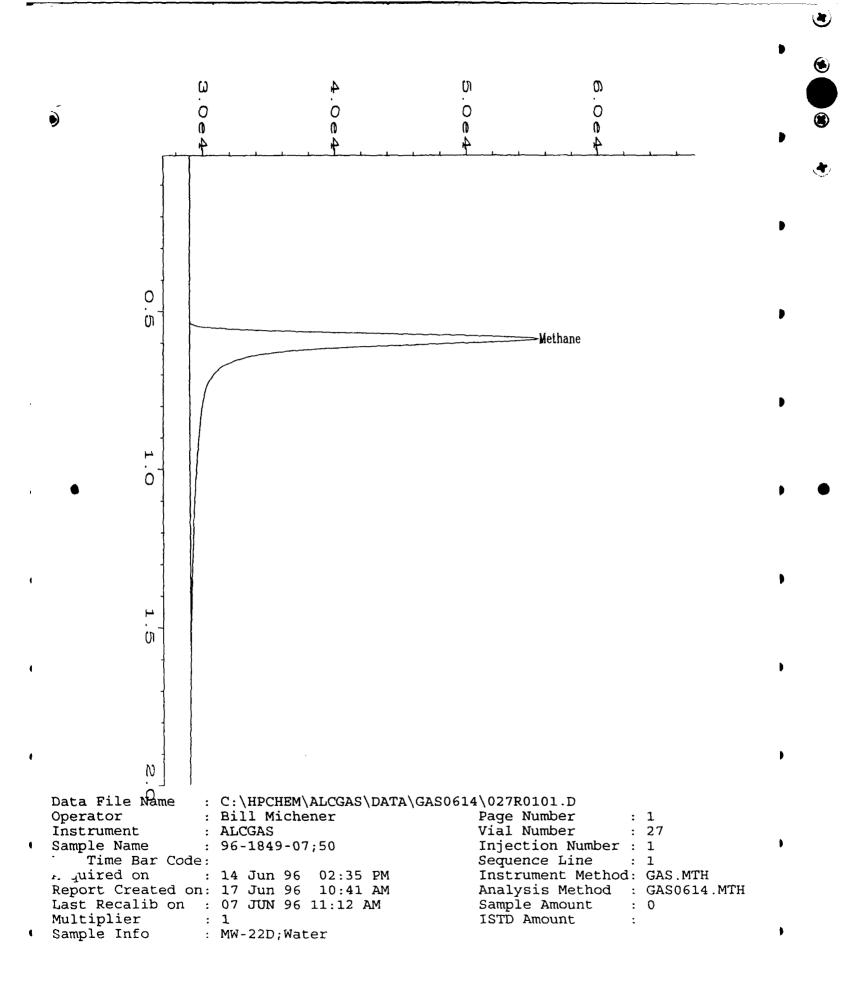
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

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Methane Report Form

Client Sample Number	: MW-32	Client Project No.	: Madison ANGB
Lab Sample Number	: 96-1849-08	Lab Work Order	: 96-1849
Date Sampled	: 6/5/96	Dilution Factor	: 50.00
Date Received	: 6/6/96	Method	: RSKSOP-175
Date Extracted/Prepared	: 6/14/96	Matrix	: Water
Date Analyzed	: 6/14/96	Lab File No.	: GAS0614028

	Sample			
Compound Name	Cas Number	Concentration	RL	
		mg/L	mg/L	
Methane	74-82-8	0.6	0.1	

Temperature	:	84.4 F	Saturation	Meth	0.1528 1
Amount Injected	:	0.01 ml	Concentration		
Total Volume of Sample	:	43 mi	Concentration	Meth	0.47107171
Head space created	:	4 ml	in Head Space		
Methane Area	:	71.158 ua	 		

Atomic weight(Methane)	:	1 <u>6</u> g
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Qualifiers

E = Extrapolated value.

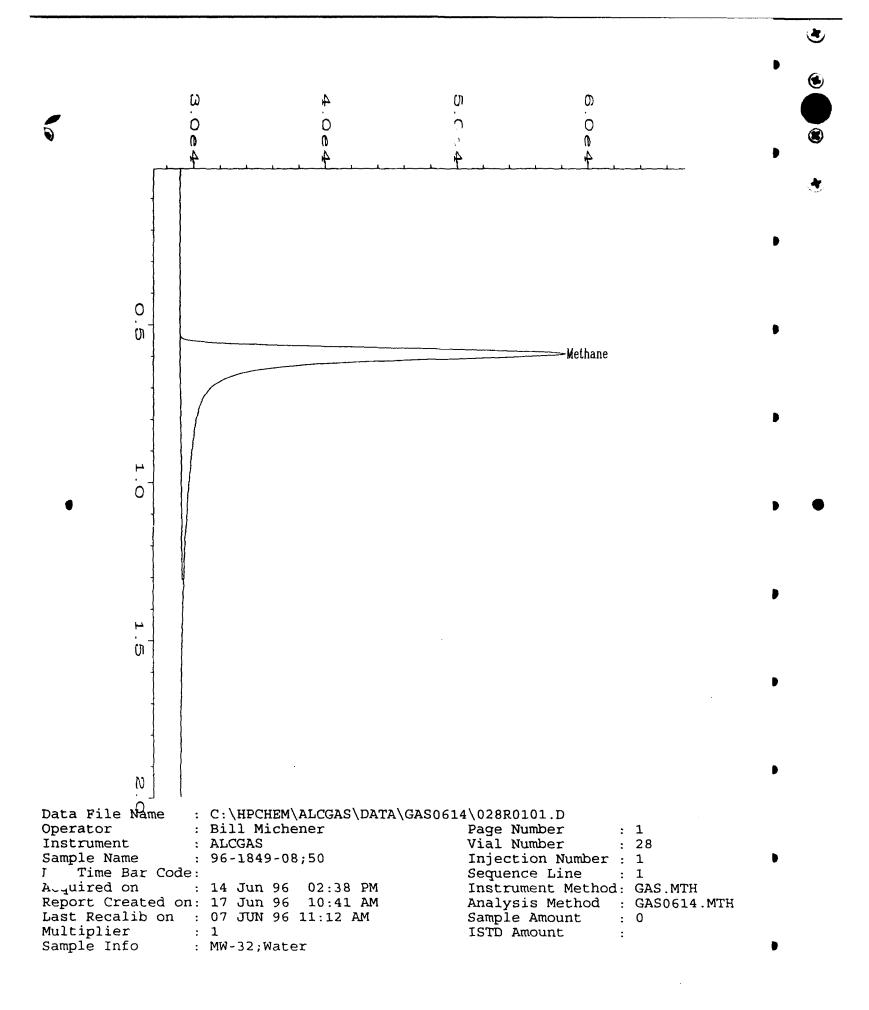
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

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Client Sample Number	: MW-17	Client Project No.	: Madison ANGB
Lab Sample Number	: 96-1849-09	Lab Work Order	: 96-1849
Date Sampled	: 6/5/96	Dilution Factor	: 10.00
Date Received	: 6/6/96	Method	: RSKSOP-175
Date Extracted/Prepared	: 6/14/96	Matrix	: Water
Date Analyzed	: 6/14/96	Lab File No.	: GAS0614029

		Sample			
Compound Name	Cas Number	Concentration	RL		
	A	mg/L	mg/L		
Methane	74-82-8	0.07	0.02		

Temperature	:	84.4 F	Saturation	Meth	0.0168
Amount Injected	:	0.05 ml	Concentration		
Total Volume of Sample	:	43 ml	Concentration	Meth	0.0519967 6
Head space created	:	4 ml	in Head Space		
Methane Area	:	39.272 ug			

Atomic weight(Methane)	:	16 g

Qualifiers

E = Extrapolated value.

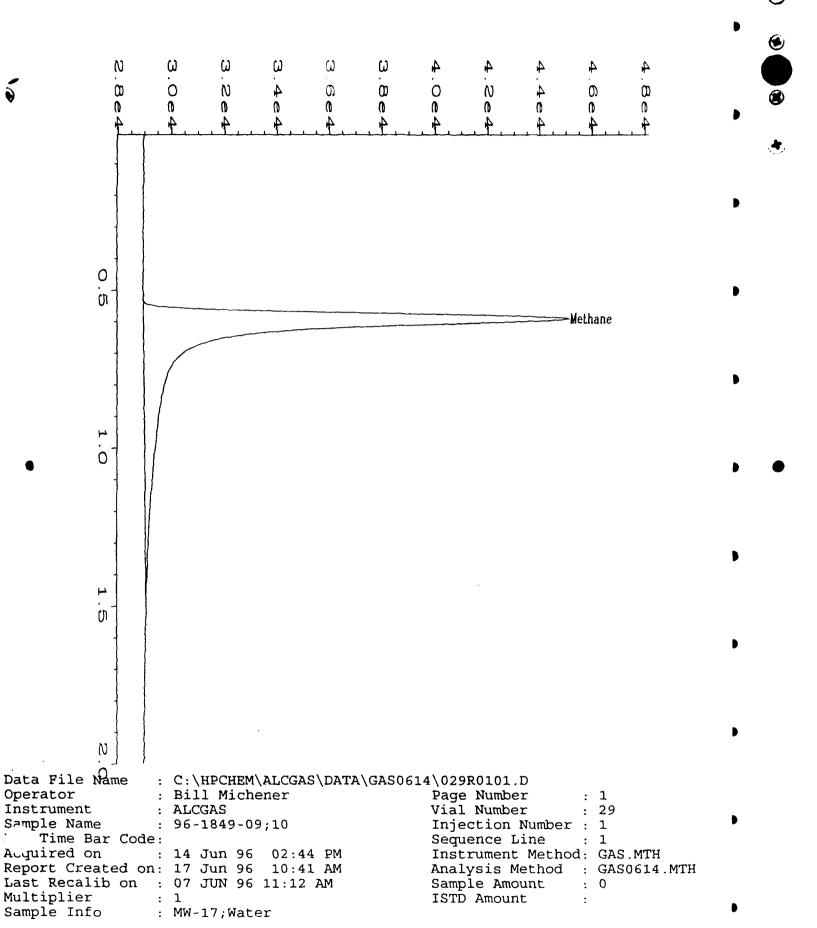
U = Compound analyzed for, but not detected.

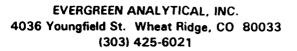
B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

A. Hollman
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Methane Report Form

Client Sample Number : MW-25 : Madison ANGB Client Project No. Lab Sample Number : 96-1849-10 Lab Work Order : 96-1849 **Date Sampled** : 6/5/96 Dilution Factor : 1.00 **Date Received** : 6/6/96 Method : RSKSOP-175 Date Extracted/Prepared : 6/14/96 Matrix : Water Date Analyzed : 6/14/96 Lab File No. : GAS0614030

Compound Name	Cas Number	Sample Concentration mg/L	RL mg/L	
Methane	74-82-8	U	0.002	- ,

Temperature	:	84.5_F	Saturation	Meth	
Amount Injected	:	0.5 ml	Concentration		
Total Volume of Sample	: <u> </u>	43 ml	Concentration	Meth	
Head space created	:	4 ml	in Head Space		
Methane Area	: —	0 ug			

Atomic weight(Methane) : _____ 16 g

Qualifiers

E = Extrapolated value.

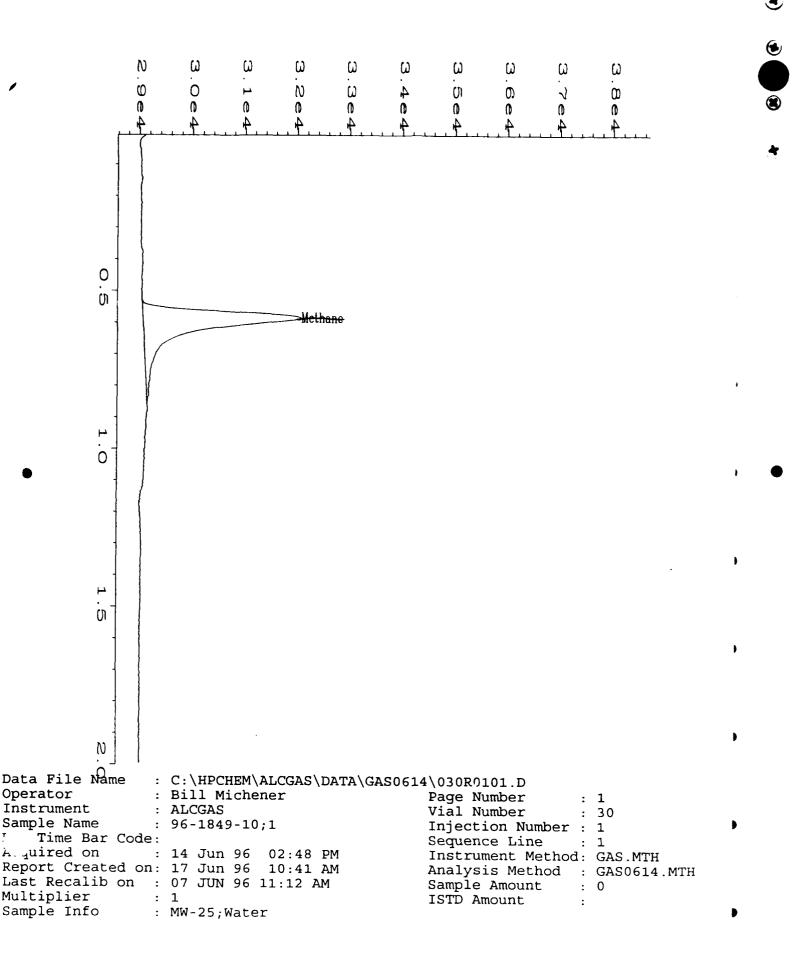
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

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Client Sample Number	: CPT-18S : 96-1849-11	Client Project No. Lab Work Order	: Madison ANGB : 96-1849
Lab Sample Number	: 96·1649·11 : 6/5/96	Dilution Factor	: 1.00
Date Sampled Date Received	: 6/6/96	Method	: RSKSOP-175
Date Extracted/Prepared	: 6/14/96	Matrix	: Water
Date Analyzed	: 6/14/96	Lab File No.	: GAS0614031

Compound Name	Cas Number	Concentration	RL mg/L
		mg/L	ilig/L
Methane	74-82-8	0.003	0.002

Temperature	:	85.2 F	Saturation	Meth	0.00 5
Amount Injected	:	0.5 ml	Concentration		
Total Volume of Sample	•	43 ml	Concentration	Meth	0.00259972
Head space created	:	4 ml	in Head Space		
Methane Area	:	19.664 ug			

Atomic weight(Methane) : 16 g

Qualifiers

E = Extrapolated value.

U = Compound analyzed for, but not detected.

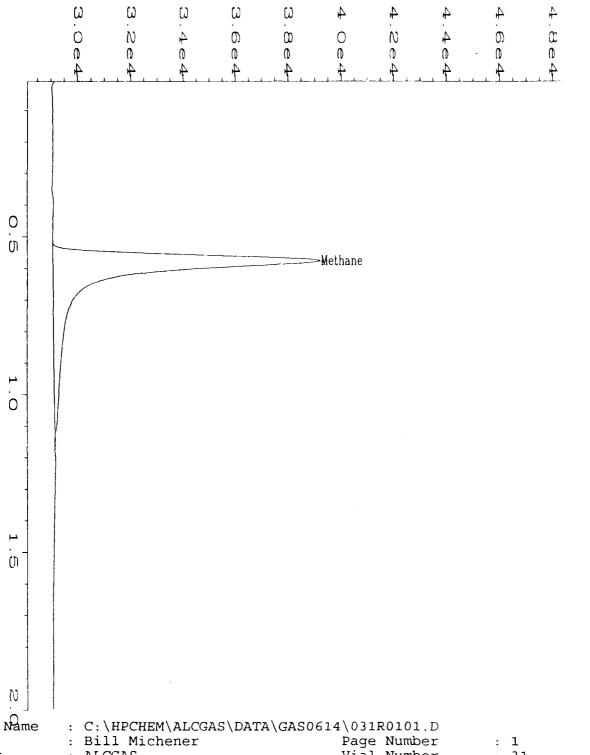
B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

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Data File Name Operator Instrument : ALCGAS Vial Number : 31 Sample Name : 96-1849-11;1 Injection Number : 1 Time Bar Code: Sequence Line : 1

A jaired on : 14 Jun 96 02:55 PM Report Created on: 17 Jun 96 10:41 AM Instrument Method: GAS.MTH Analysis Method : GAS0614.MTH Last Recalib on : 07 JUN 96 11:12 AM Sample Amount : 0

Multiplier ISTD Amount : 1 Sample Info : CPT-18S;Water

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

RSKSOP-175 Gas Method Methane LCS Report Form

LCS No.

: LCS061496

EPA Method No.

: RSKSOP-175

Date Prepared

: 6/14/96

Matrix

: Water

Date Analyzed

: 6/14/96

Method Blank

: GB061496

E.A. LCS Source No.

: 1719

Lab File No.

: GAS0614006

	Spike	Method Blank	LCS		QC
Compound	Added	Concentration	Concentration	LCS	Limits
	(ug)	(ug)	(ug)	%REC	%REC
Methane Gas	500	0	395	79	67-85

Spike Recovery: 0 out of (1) outside limits.

Note: The LCS was made by taking the sample and displacing 4ml of headspace with a 1% methane gas and shaking the VOA for 5 minutes. Then injecting 50 ul from the headspace into the GC resulting in a theoretical concentration of 500 ug.

Notes

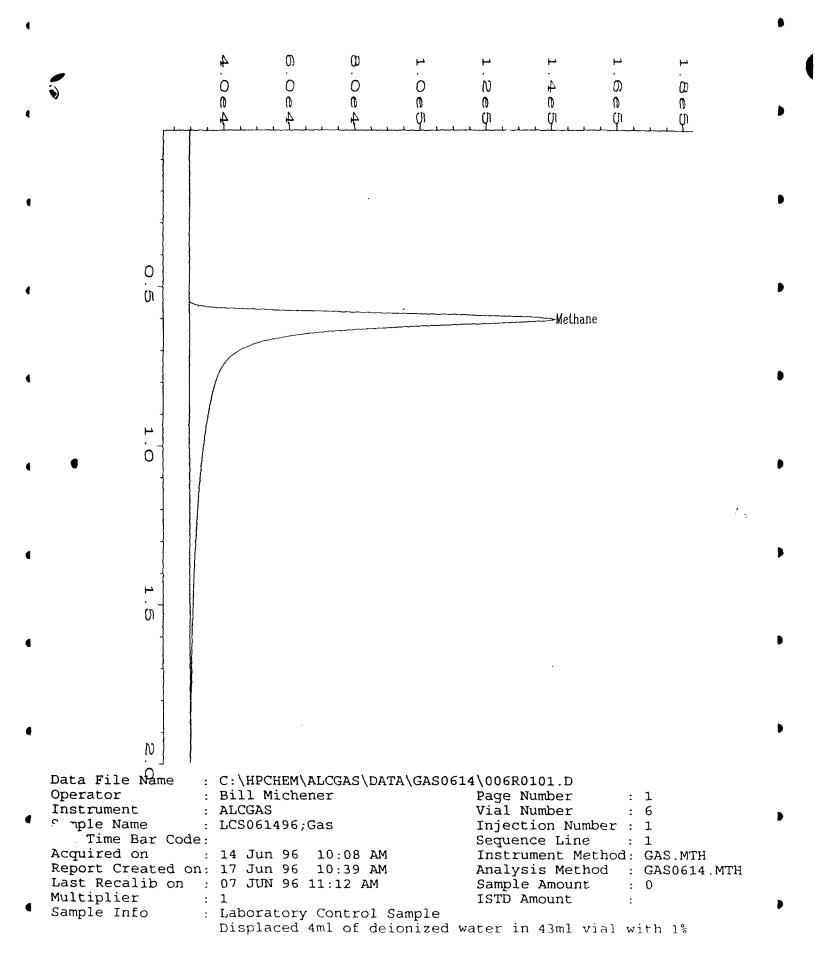
* = Values outside of QC limits.

NA = Not analyzed/not available.

Analyst

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LCS0614.XLS; 6/17/96



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4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

Anion Report

		729691.09110
ID.	:	Madison ANGB
ımber		96-1849

Date Sampled : 6/05/96 Client Project Date Received : 6/06/96 Lab Project Number: Date Prepared : 6/07/96 Method : EPA 300.0 Date Analyzed : 6/07/96 **Detection Limit** : 0.25 mg/L

Evergreen Sample #	Client Sample ID.	<u>Matrix</u>	<u>Chloride</u> mg/L	Dilution Factor
96-1849-01	MW-11	Water	3.7	1
96-1849-02	MW-9	Water	13.1	1
96-1849-03	MW-10	Water	4.0	1
96-1849-04	MW-30	Water	4.8	1
96-1849-05	MW-8	Water	5.0	1
96-1849-06	MW-22S	Water	20.6	1
96-1849-07	MW-22D	Water	3.8	1
96-1849-08	MW-32	Water	3.9	1
96-1849-09	MW-17	Water	10.9	1
96-1849-10	MW-25	Water	10.8	1
96-1849-11 Method Blank	CPT-18S (6/07/96)	Water	6.5 <0.25	1

Quality Assurance

	<u> </u>	Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
96-1849-11	CPT-18S Matrix Spike	10.0	6.5	16.3	99
96-1849-11	CPT-18S Matrix Spike Dul	p 10.0	6.5	16.6	101

MS/MSD RPD

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4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

Anion Report

				729691.09110
Date Sampled	: 6/05/96	Client Project ID.	:	Madison ANGB
Date Received	: 6/06/96	Lab Project Number	:	96-1849
Date Prepared	: 6/07/96	Method	:	EPA 300.0
Date Analyzed	: 6/07/96	Detection Limit	:	0.076 mg/L

Evergreen <u>Sample</u> #	Client Sample ID.	<u>Matrix</u>	<u>Nitrite-N</u> mg/L	Dilution Factor
96-1849-01	MW-11	Water	< 0.076	1
96-1849-02	MW-9	Water	< 0.076	1
96-1849-03	MW-10	Water	< 0.076	1
96-1849-04	MW-30	Water	< 0.076	1
96-1849-05	MW-8	Water	< 0.076	1
96-1849-06	MW-22S	Water	< 0.076	1
96-1849-07	MW-22D	Water	< 0.076	1
96-1849-08	MW-32	Water	<0.076	1
96-1849-09	MW-17	Water	0.28	1
96-1849-10	MW-25	Water	< 0.076	1
96-1849-11 Method Blank	CPT-18S (6/07/96)	Water	<0.076 <0.076	1

Quality Assurance *

	<u>s</u>	pike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
96-1849-11	CPT-18S Matrix Spike	10.0	<0.25	9.6	96
96-1849-11	CPT-18S Matrix Spike Dup	10.0	<0.25	9.4	94

MS/MSD RPD

• = Quality assurance results reported as Nitrite (NO₂).

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Anion Report

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			720001.00110
: 6/05/96	Client Project ID.	:	Madison ANGB
: 6/06/96	Lab Project Number	:	96-1849
: 6/07/96	Method	:	EPA 300.0
: 6/07/96	Detection Limit	:	0.056 mg/L
	: 6/06/96 : 6/07/96	: 6/06/96	: 6/06/96

Evergreen Sample #	Client Sample ID.	<u>Matrix</u>	Nitrate-N mg/L	Dilution <u>Factor</u>
96-1849-01	MW-11	Water	4.5	1
96-1849-02	MW-9	Water	2.3	1
96-1849-03	MW-10	Water	0.20	1
96-1849-04	MW-30	Water	0.16	1
96-1849-05	MW-8	Water	0.14	1
96-1849-06	MW-22S	Water	4.9	1
96-1849-07	MW-22D	Water	0.076	1
96-1849-08	MW-32	Water	0.082	1
96-1849-09	MW-17	Water	5.3	1
96-1849-10	MW-25	Water	0.30	1
96-1849-11 Method Blank	CPT-18S (6/07/96)	Water	1.4 <0.056	1

Quality Assurance *

	<u>Sp</u>	ike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
96-1849-11	CPT-18S Matrix Spike	10.0	6.0	15.4	94
96-1849-11	CPT-18S Matrix Spike Dup	10.0	6.0	15.6	96

MS/MSD RPD

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Analyst

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^{• =} Quality assurance results reported as Nitrate (NO₃).

4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

Anion Report

Date Sampled	: 6/05/96	Client Project ID.	:	729691.09110 Madison ANGB
Date Received	: 6/06/96	Lab Project Number	:	96-1849
Date Prepared	: 6/07/96	Method	:	EPA 300.0
Date Analyzed	: 6/07/96	Detection Limit	:	0.25 mg/L

Evergreen Sample #	Client Sample ID.	<u>Matrix</u>	<u>Sulfate</u> mg/L	Dilution Factor
96-1849-01	MW-11	Water	37.5	10
96-1849-02	MW-9	Water	11.4	1
96-1849-03	MW-22S	Water	1.2	1
96-1849-04	MW-30	Water	0.92	1
96-1849-05	MW-8	Water	1.1	1
96-1849-06	MW-22S	Water	49.1	10
96-1849-07	MW-22D	Water	6.9	1
96-1849-08	MW-32	Water	8.0	1
96-1849-09	MW-17	Water	63.1	10
96-1849-10	MW-25	Water	18.2	1
96-1849-11 Method Blank	CPT-18S (6/07/96)	Water	89.2 <0.25	10

Onadity Assurance *

	<u>3</u>	pike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
96-1849-11	CPT-18S Matrix Spike	10.0	8.9	18.4	95
96-1849-11	CPT-18S Matrix Spike Dup	10.0	8.9	18.5	96
MS/MSD RP	D			_	0.6

^{• =} Spike results based on a 10X dilution.

Malyst

Approved

4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

Analysis Report

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Ν Date Sampled : 6/5/96 Client Project ID. : 729691.09110 Date Received : 6/6/96 Lab Project Number: 96-1849 Date Prepared Method : EPA 310.1 : 6/6/96 Date Analyzed : 6/6/96 **Detection Limit** : 5.0 mg CaCO₃/L

Evergreen Sample #	Client Sample ID.	<u>Matrix</u>	Total <u>Alkalinity</u> (mg CaCO ₃ /L)	Dilution <u>Factor</u>
96-1849-03	MW-10	Water	286	1
96-1849-04	MW-30	Water	302	1
96-1849-05	MW-8	Water	519	1
96-1849-10	MW-25	Water	439	1

Method Blank (6/6/96) < 5.0

Quality Assurance

Reference	<u>True Value</u> (mgCaCO ₃ /L)	<u>Result</u> (mgCaCO ₃ /L)	% Recovery
ERA Alkalinity	120	124	103

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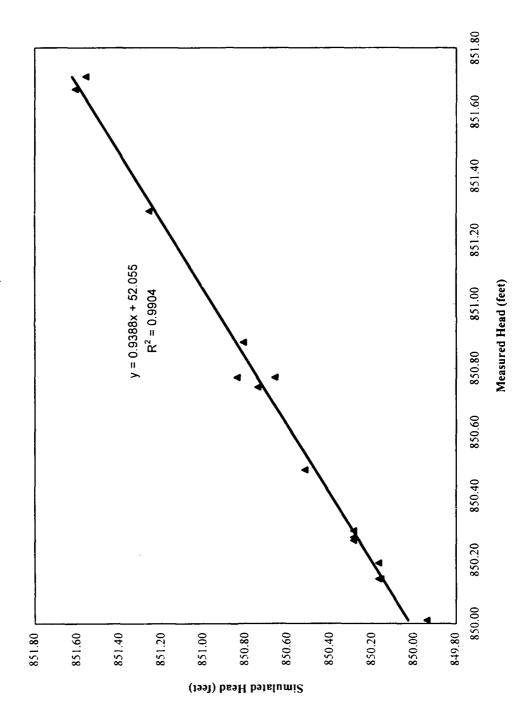
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RMS Error Calculations for Calibrated Flow Model Truax Field Site

Well/CPT	Cell Location	Measured Head	Simulated Head		
	x,y	Hm	Hs	Hm - Hs	(Hm - Hs) ²
MW-17	10,4	851.67	851.61	0.0600	0.0036
CPT18	7, 4	851.71	851.56	0.1500	0.0225
CPT17	10,6	851.29	851.26	0.0300	0.0009
MW-22S	15,9	850.77	850.84	-0.0700	0.0049
MW-9	9,9	850.88	850.81	0.0700	0.0049
CPT-15	5,9	850.74	850.74	0.0000	0.0000
MW-10	8,10	850.77	850.66	0.1100	0.0121
MW-11	7, 1 1	850.48	850.52	-0.0400	0.0016
MW-12	8,13	850.29	850.29	0.0000	0.0000
CPT20	9,13	850.26	850.29	-0.0300	0.0009
CPT19	13,13	850.27	850.29	-0.0200	0.0003
CPT5	11,14	850.19	850.17	0.0200	0.0004
CPT4	7,14	850.14	850.17	-0.0300	0.0009
MW-4	19,15	850.14	850.16	-0.0200	0.0003
CPT1	12,17	850.01	849.94	0.0700	0.0049
O	.2,	550.57	G 10.0 1	0.0700	0.0010
;	Sum of Squares of	Remainders			0.058
,	Average of Square	es of Remainders			0.0034
í	RMS				0.0586
	RMS as a percenta (Head Drop is abo		over the model doma	in	1.78

Simulated Head vs. Measured Head, Truax Field Model



APPENDIX D

MODEL INPUT AND OUTPUT FILES